

Jan Delamar

144736

Access DB# \_\_\_\_\_

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name Jennifer Kim Examiner # 77469 Date: 2/9/05  
 Art Unit 1619 Phone Number 301 20628 Serial Number 09/816826  
 Mail Box and Bldg Room Location Rem 4B02 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

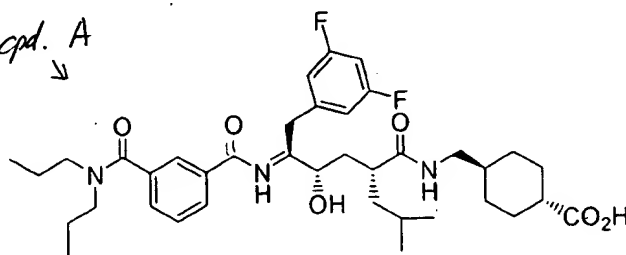
Title of Invention Methods to treat alzheimer's disease

Inventors (please provide full names): Hon et al.

Earliest Priority Filing Date: 3/23/2000

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

- 1) Please search claim 95 based on the cpd XII and the diseases including Alzheimer's, cognitive dysfunction, Down's Syndrome, Hereditary cerebral Hemorrhage, Brain damage & mechanisms involving beta-amyloid deposit.
- 2) Please display hit structures of claim 95.
- 3) Please search claim 104 based on the structures of cpds in claim 104. ; display to Registry #.
- 4) Please search → cpd. A  
 which is highlighted  
 Structure of claim 104.



STAFF USE ONLY

Searcher: Jan Typ: \_\_\_\_\_

provide reg # 22804 NA: \_\_\_\_\_

Searcher Phone # \_\_\_\_\_ AA: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date searched: 2/16/05 Structure (S) ☒ Queue Other: \_\_\_\_\_

Date indexed: 2/16/05 Bibliographic: \_\_\_\_\_

Searcher Prep. & Review Time: \_\_\_\_\_ Litigation: \_\_\_\_\_

Patent Prep. Time: 180 Full text: \_\_\_\_\_ Sequence Systems: \_\_\_\_\_

Indexing Time: 45 Patent Family: \_\_\_\_\_ WWW Internet: \_\_\_\_\_

Other: \_\_\_\_\_ Other: \_\_\_\_\_

THX,



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 144736

TO: Jennifer Kim  
Location: 4b02 / 4b18  
Wednesday, February 16, 2005  
Art Unit: 1617  
Phone: 272-0628  
Serial Number: 09 / 816876

From: Jan Delaval  
Location: Biotech-Chem Library  
Rem 1a51  
Phone: 272-2504

jan.delaval@uspto.gov

### Search Notes

3/23/2000

*[Handwritten scribbles]*

104  
109

95  
100

(New) The method according to claim 100, wherein the compound is

N-[(1S, 2S, 4R)-1-(3,5-Difluorobenzyl)-4-(syn, syn)-(3,5-dimethoxycyclohexylcarbamoyl)-2-hydroxyhexyl]-N,N-dipropylisophthalamide,

362479-94-5

6-[6-(3,5-Difluorophenyl)-5-(S)-(3-dipropylcarbamoylbenzoylamino)-2-(R)-ethyl-4-(S)-hydroxyhexanoylamino]-hexanoic acid,

362479-95-6

5-[6-(3,5-Difluorophenyl)-5-(S)-(3-dipropylcarbamoylbenzoylamino)-2-(R)-ethyl-4-(S)-hydroxyhexanoylamino]-pentanoic acid,

362480-11-3

4-[6-(3,5-Difluorophenyl)-5-(S)-(3-dipropylcarbamoylbenzoylamino)-2-(R)-ethyl-4-(S)-hydroxyhexanoylamino]-butyric acid,

362480-12-4

3-[6-(3,5-Difluorophenyl)-5-(S)-(3-dipropylcarbamoylbenzoylamino)-2-(R)-ethyl-4-(S)-hydroxyhexanoylamino]-propionic acid,

362480-13-5

8-[6-(3,5-Difluorophenyl)-5-(S)-(3-dipropylcarbamoylbenzoylamino)-2-(R)-ethyl-4-(S)-hydroxyhexanoylamino]-octanoic acid,

362480-14-6

8-[6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoylbenzoylamino)-2-(R)-ethyl-4-(S)-hydroxy-hexanoylamino]-octanoic acid methyl ester,

362479-96-7

N-[4-(R)-Butylcarbamoyl-1-(S)-(3,5-difluoro-benzyl)-2-(S)-hydroxy-hexyl]-N,N-dipropyl-isophthalamide,

362480-15-7

N-[1-(S)-(3,5-Difluoro-benzyl)-2-(S)-hydroxy-4-(R)-isobutylcarbamoyl-hexyl]-N,N-dipropyl-isophthalamide,

362480-16-8

N-[4-(R)-Benzylcarbamoyl-1-(S)-(3,5-difluoro-benzyl)-2-(S)-hydroxy-hexyl]-N,N-dipropyl-isophthalamide,

362480-17-9

N-[4-(R)-(Cyclohexylmethyl-carbamoyl)-1-(S)-(3,5-difluoro-benzyl)-2-(S)-hydroxy-hexyl]-N,N-dipropyl-isophthalamide,

362480-18-0

*N*-[1-(*S*)-(3,5-Difluoro-benzyl)-2-(*S*)-hydroxy-4-(*R*)-(piperidine-1-carbonyl)-hexyl]-*N,N*-dipropyl-isophthalamide,

362480-19-1

*N*-[1-(*S*)-(3,5-Difluoro-benzyl)-4-(*R*)-(2-dimethylamino-ethylcarbamoyl)-2-(*S*)-hydroxy-hexyl]-*N,N*-dipropyl-isophthalamide,

362480-20-4

*N*-[4-(*R*)-(Butyl-methyl-carbamoyl)-1-(*S*)-(3,5-difluoro-benzyl)-2-(*S*)-hydroxy-hexyl]-*N,N*-dipropyl-isophthalamide,

362480-21-5

*N*-[1-(*S*)-(3,5-Difluoro-benzyl)-2-(*S*)-hydroxy-4-(*R*)-(3-hydroxy-propylcarbamoyl)-hexyl]-*N,N*-dipropyl-isophthalamide,

362480-22-6

4-([6-(3,5-Difluoro-phenyl)-5-(*S*)-(3-dipropylcarbamoyl-benzoylamino)-2-(*R*)-ethyl-4-(*S*)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid methyl ester,

362480-23-7

*N*-[1-(*S*)-(3,5-Difluoro-benzyl)-4-(*R*)-(3-dimethylamino-propylcarbamoyl)-2-(*S*)-hydroxy-hexyl]-*N,N*-dipropyl-isophthalamide,

362480-24-8

4-(*anti*)-([6-(3,5-Difluoro-phenyl)-5-(*S*)-(3-dipropylcarbamoyl-benzoylamino)-2-(*R*)-ethyl-4-(*S*)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid,

362479-97-8

4-(*anti*)-([6-(3,5-Difluoro-phenyl)-5-(*S*)-(3-dipropylcarbamoyl-benzoylamino)-4-(*S*)-hydroxy-2-(*R*)-methyl-hexanoylamino]-methyl)-cyclohexanecarboxylic acid,

362480-40-0

4-(*anti*)-([6-(3,5-Difluoro-phenyl)-5-(*S*)-(3-dipropylcarbamoyl-benzoylamino)-4-(*S*)-hydroxy-2-(*R*)-propyl-hexanoylamino]-methyl)-cyclohexanecarboxylic acid,

362479-99-0

4-(*anti*)-([6-(3,5-Difluoro-phenyl)-5-(*S*)-(3-dipropylcarbamoyl-benzoylamino)-4-(*S*)-hydroxyl-2-(*R*)-isobutyl-hexanoylamino]-methyl)-cyclohexanecarboxylic acid,

362480-25-9

4-(*anti*)-([6-(3,5-Difluoro-phenyl)-5-(*S*)-(3-dipropylcarbamoyl-benzoylamino)-4-(*S*)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid,

362480-26-0

4-(anti)-([2-(R)-Benzyl-6-(3,5-difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-benzoylamino)-4-(S)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid,

362479-98-9

4-(anti)-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-5-methyl-benzoylamino)-2-(R)-ethyl-4-(S)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid,

362480-27-1

4-(anti)-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-5-methyl-benzoylamino)-2-(R)-ethyl-4-(S)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid methyl ester,

362480-28-2

N-[1-(S)-(3,5-Difluoro-benzyl)-2-(S)-hydroxy-4-(R)-(2-morpholin-4-yl-ethylcarbamoyl)-pentyl]-5-methyl-N,N-dipropyl-isophthalamide,

362480-29-3

N-[1-(S)-(3,5-Difluoro-benzyl)-2-(S)-hydroxy-4-(R)-isobutylcarbamoyl-pentyl]-5-methyl-N,N-dipropyl-isophthalamide,

362480-30-6

N-[4-(R)-(2-Diethylamino-ethylcarbamoyl)-1-(S)-(3,5-difluoro-benzyl)-2-(S)-hydroxy-pentyl]-5-methyl-N,N-dipropyl-isophthalamide,

362480-31-7

N-[1-(S)-(3,5-Difluoro-benzyl)-2-(S)-hydroxy-4-(R)-[(tetrahydro-furan-2-ylmethyl)-carbamoyl]-pentyl]-5-methyl-N,N-dipropyl-isophthalamide,

362480-32-8

N-[4-(R)-(Adamantan-2-ylcarbamoyl)-1-(S)-(3,5-difluoro-benzyl)-2-(S)-hydroxy-pentyl]-5-methyl-N,N-dipropyl-isophthalamide,

362480-33-9

N-[1-(S)-(3,5-Difluoro-benzyl)-2-(S)-hydroxy-4-(R)-methyl-5-morpholin-4-yl-5-oxo-pentyl]-5-methyl-N,N-dipropyl-isophthalamide,

362480-34-0

N-[4-(R)-Benzylcarbamoyl-1-(S)-(3,5-difluoro-benzyl)-2-(S)-hydroxy-pentyl]-5-methyl-N,N-dipropyl-isophthalamide,

362480-35-1

*N*-[1-(*S*)-(3,5-Difluoro-benzyl)-4-(*R*)-(4-fluoro-benzylcarbamoyl)-2-(*S*)-hydroxy-pentyl]-5-methyl-*N,N*-dipropyl-isophthalamide,

362480-36-2

*N*-[1-(*S*)-(3,5-Difluoro-benzyl)-2-(*S*)-hydroxy-4-(*R*)-phenethylcarbamoyl-pentyl]-5-methyl-*N,N*-dipropyl-isophthalamide,

362480-37-3

*N*-[1-(*S*)-(3,5-Difluoro-benzyl)-4-(*R*)-[(furan-2-ylmethyl)-carbamoyl]-2-(*S*)-hydroxy-pentyl]-5-methyl-*N,N*-dipropyl-isophthalamide, or

362480-38-4

*N*-[1-(*S*)-(3,5-Difluoro-benzyl)-2-(*S*)-hydroxy-4-(*R*)-(prop-2-ynylcarbamoyl)-pentyl]-5-methyl-*N,N*-dipropyl-isophthalamide.

362480-39-5

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:57:27 ON 15 FEB 2005

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STRUCTURE FILE UPDATES: 14 FEB 2005 HIGHEST RN 831169-46-1

DICTIONARY FILE UPDATES: 14 FEB 2005 HIGHEST RN 831169-46-1

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d l13 ide can

L13 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-25-9 REGISTRY

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-2-(2-methylpropyl)-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C38 H53 F2 N3 O6

SR CA

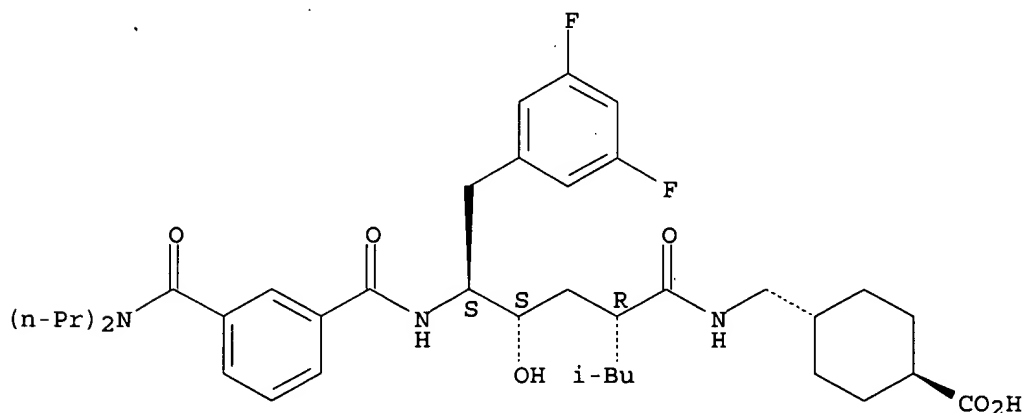
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:146499  
REFERENCE 2: 138:107007  
REFERENCE 3: 135:273220

=> d his

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SET COST OFF

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E HOM R/AU  
L2 13 S E7  
E MAMO S/AU  
L3 10 S E3-E5  
E TUNG J/AU  
L4 69 S E3-E8,E18-E20  
E GAILUNAS A/AU  
L5 13 S E4,E5  
E JOHN V/AU  
L6 211 S E3-E13,E18,E19,E21  
E VARGHESE/AU  
E VARGHESE J/AU  
L7 118 S E3-E6,E12,E14  
E FANG L/AU  
L8 149 S E3,E12,E24-E28  
E ELAN/PA,CS  
E ELAM/PA,CS  
L9 427 S E22-E207  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 14:30:31 ON 15 FEB 2005

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L11 10 S L10 AND (46.150.18 AND 46.150.1)/RID AND 3/NR  
L12 2 S L11 AND C38H53F2N3O6  
L13 1 S 362480-25-9  
E C38H53F2N3O6/MF  
L14 STR  
L15 0 S L14  
L16 STR L14  
L17 0 S L16  
L18 STR L16  
L19 0 S L18  
L20 STR L18  
L21 0 S L20  
L22 STR L20  
L23 3 S L22  
L24 1871 S L22 FUL  
SAV L24 JKIM816/A  
L25 679 S L16 FUL SUB=L24  
SAV L25 JKIM816A/A  
L26 20 S L10 AND L25  
L27 19 S L26 NOT L13  
L28 85 S L10 NOT L26  
L29 74 S L28 NOT SQL/FA  
L30 63 S L29 AND (N AND O)/ELS



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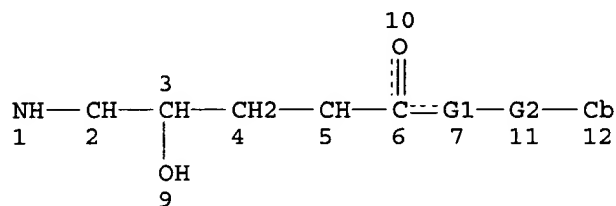
L31      36 S L30 AND HYDROXY
L32      15 S L31 NOT 3 5 DIFLUORO
L33      21 S L31 NOT L32
L34      40 S L27,L33
L35      36 S L34 AND F/ELS
L36      4 S L34 NOT L35
L37      36 S L35 AND F>=2
          SAV TEMP L10 JKIM816B/A
          SAV L37 JKIM816C/A

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FILE 'REGISTRY' ENTERED AT 14:57:27 ON 15 FEB 2005

=> d sta que l25

L16 STR



VAR G1=O/N

REP G2=(0-3) CH2

NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

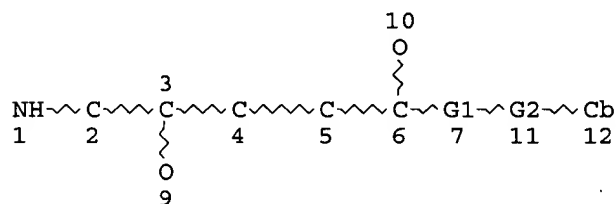
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L22 STR



VAR G1=O/N

REP G2=(0-1) AK

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L24 1871 SEA FILE=REGISTRY SSS FUL L22

L25 679 SEA FILE=REGISTRY SUB=L24 SSS FUL L16

100.0% PROCESSED 1871 ITERATIONS

679 ANSWERS

SEARCH TIME: 00.00.01

=> => d his

(FILE 'HOME' ENTERED AT 08:42:44 ON 16 FEB 2005)  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 08:43:19 ON 16 FEB 2005  
ACT JKIM816C/A

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L3 STR  
L4 STR  
L5 ( 1871)SEA FILE=REGISTRY SSS FUL L4  
L6 ( 679)SEA FILE=REGISTRY SUB=L5 SSS FUL L3  
L7 ( 20)SEA FILE=REGISTRY ABB=ON PLU=ON L1 AND L6  
L8 ( 19)SEA FILE=REGISTRY ABB=ON PLU=ON L7 NOT L2  
L9 ( 85)SEA FILE=REGISTRY ABB=ON PLU=ON L1 NOT L7  
L10 ( 74)SEA FILE=REGISTRY ABB=ON PLU=ON L9 NOT SQL/FA  
L11 ( 63)SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND (N AND O)/ELS  
L12 ( 36)SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND HYDROXY  
L13 ( 15)SEA FILE=REGISTRY ABB=ON PLU=ON L12 NOT 3 5 DIFLUORO  
L14 ( 21)SEA FILE=REGISTRY ABB=ON PLU=ON L12 NOT L13  
L15 ( 40)SEA FILE=REGISTRY ABB=ON PLU=ON (L8 OR L14)  
L16 ( 36)SEA FILE=REGISTRY ABB=ON PLU=ON L15 AND F/ELS  
L17 36 SEA FILE=REGISTRY ABB=ON PLU=ON L16 AND F>=2  
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L18 35 S L17 NOT C31H40F2N2O5

FILE 'HCAPLUS' ENTERED AT 08:44:36 ON 16 FEB 2005

L19 4 S L18  
L20 3 S L19 AND (ELAN?/PA,CS OR (HOM R? OR MAMO S? OR TUNG J? OR GAIL  
L21 1 S L19 NOT L20  
L22 2 S L19 AND (PY<=2000 OR PRY<=2000 OR AY<=2000)  
L23 4 S L19-L22

FILE 'REGISTRY' ENTERED AT 08:47:10 ON 16 FEB 2005

L24 1 S 362480-25-9

FILE 'HCAPLUS' ENTERED AT 08:47:13 ON 16 FEB 2005

L25 3 S L24  
L26 4 S L23,L25

FILE 'USPATFULL' ENTERED AT 08:47:20 ON 16 FEB 2005

L27 4 S L18 OR L24  
L28 4 S L27 AND (ELAN?/PA OR (HOM R? OR MAMO S? OR TUNG J? OR GAILUNA

=> fil reg

FILE 'REGISTRY' ENTERED AT 08:48:01 ON 16 FEB 2005  
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STRUCTURE FILE UPDATES: 15 FEB 2005 HIGHEST RN 831913-30-5  
DICTIONARY FILE UPDATES: 15 FEB 2005 HIGHEST RN 831913-30-5

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

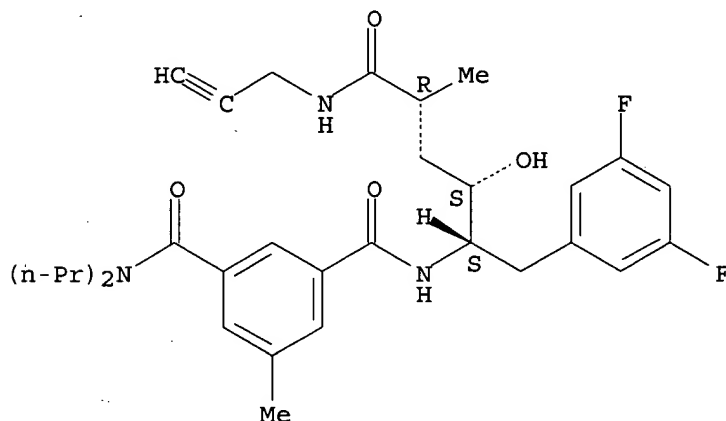
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<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d l18 ide can tot

L18 ANSWER 1 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 362480-39-5 REGISTRY  
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-(2-propynylamino)pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C31 H39 F2 N3 O4  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

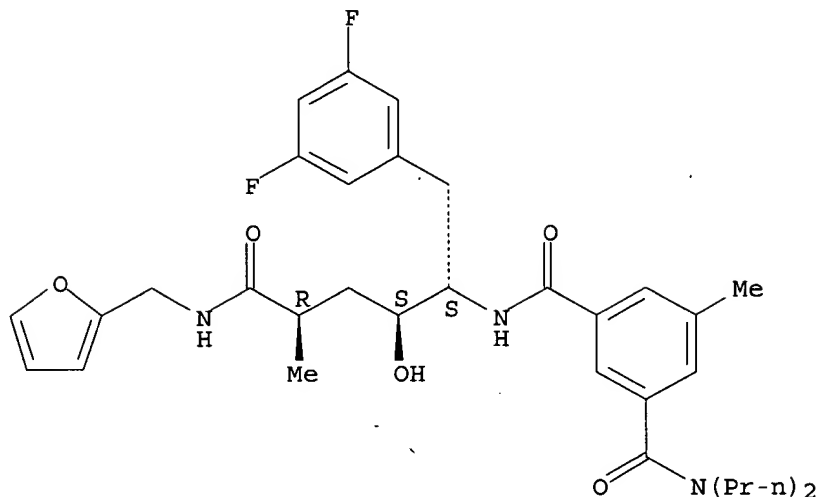
2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 2 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 362480-38-4 REGISTRY  
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-5-[(2-furanylmethyl)amino]-2-hydroxy-4-methyl-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C33 H41 F2 N3 O5  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 3 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-37-3 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-[(2-phenylethyl)amino]pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C36 H45 F2 N3 O4

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 5 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-35-1 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-[(phenylmethyl)amino]pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C35 H43 F2 N3 O4

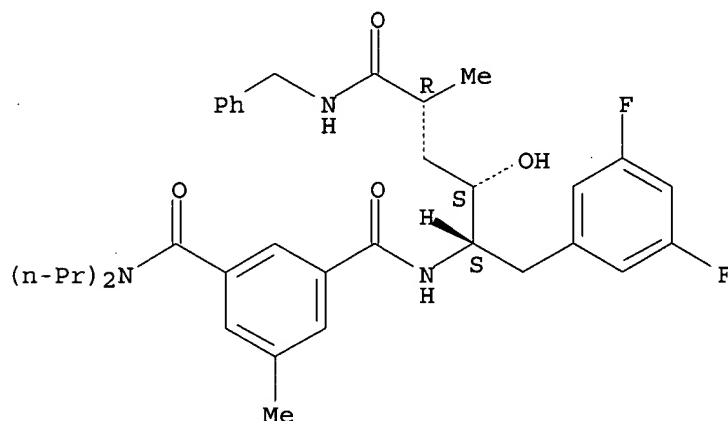
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.

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2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 6 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-34-0 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-(4-morpholinyl)-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C32 H43 F2 N3 O5

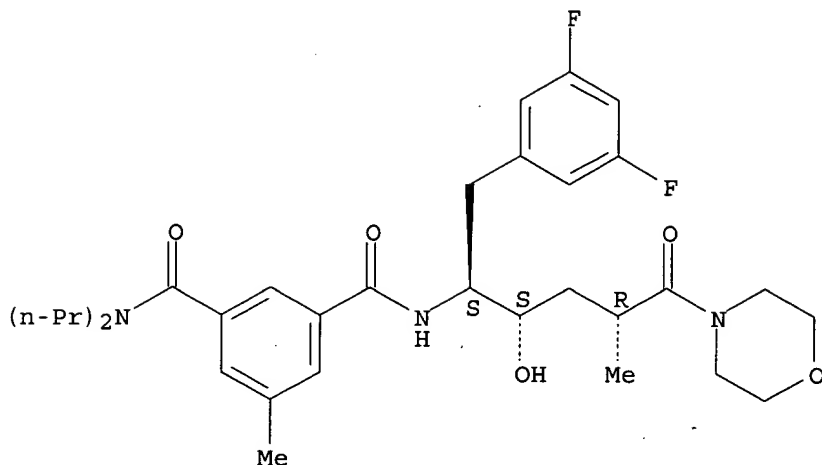
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LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 7 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-33-9 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-(tricyclo[3.3.1.1<sup>3,7</sup>]dec-2-ylamino)pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C38 H51 F2 N3 O4

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

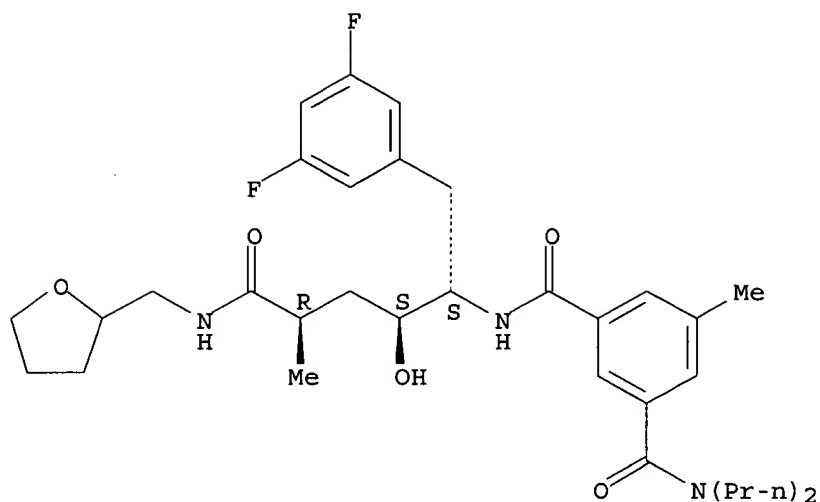
DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.







\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 9 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-31-7 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-5-[[2-(diethylamino)ethyl]amino]-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C34 H50 F2 N4 O4

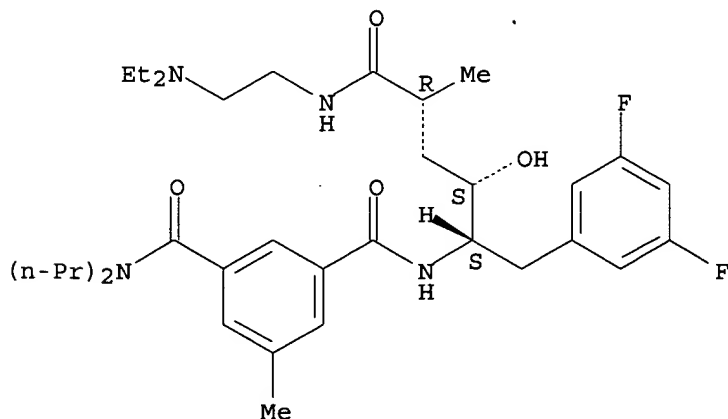
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

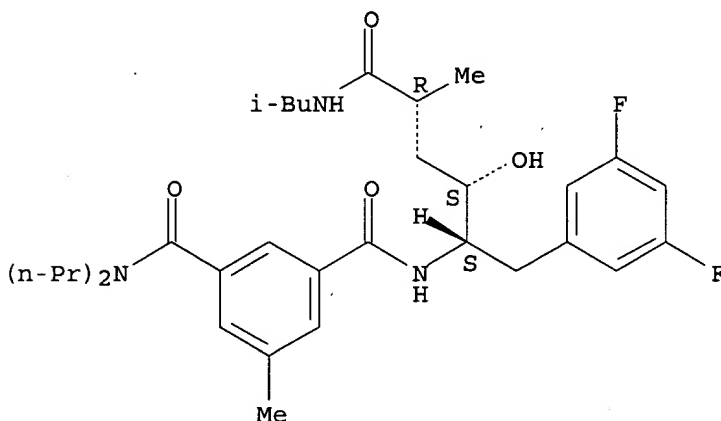
2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 10 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 362480-30-6 REGISTRY  
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-[(2-methylpropyl)amino]-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C32 H45 F2 N3 O4  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

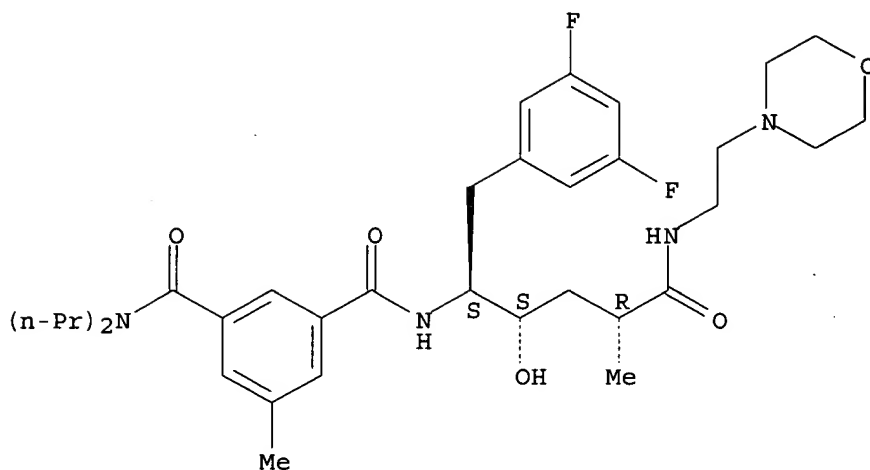
REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 11 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 362480-29-3 REGISTRY  
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-[[2-(4-morpholinyl)ethyl]amino]-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C34 H48 F2 N4 O5  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 12 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-28-2 REGISTRY

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]-5-methylbenzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]methyl]-, methyl ester, trans- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C38 H53 F2 N3 O6

SR CA

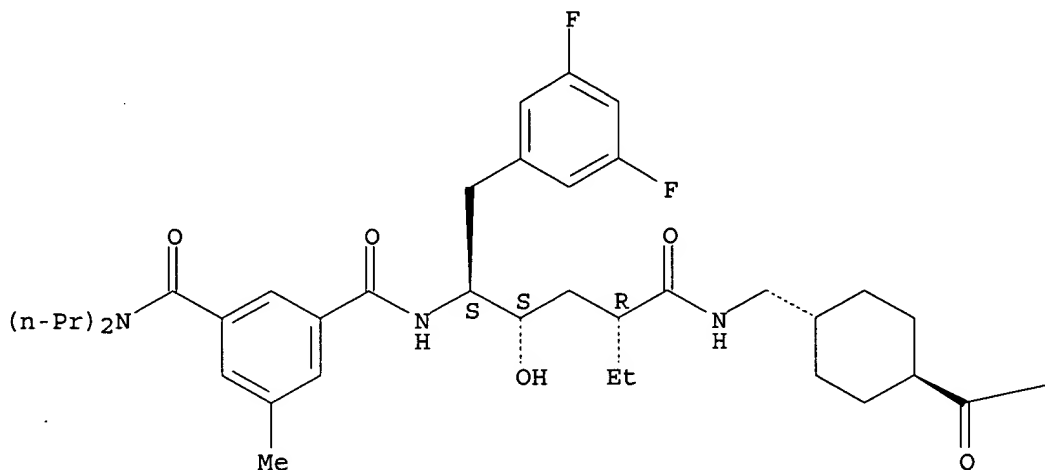
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 13 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-27-1 REGISTRY

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-  
 [(dipropylamino)carbonyl]-5-methylbenzoyl]amino]-2-ethyl-4-hydroxy-1-  
 oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C37 H51 F2 N3 O6

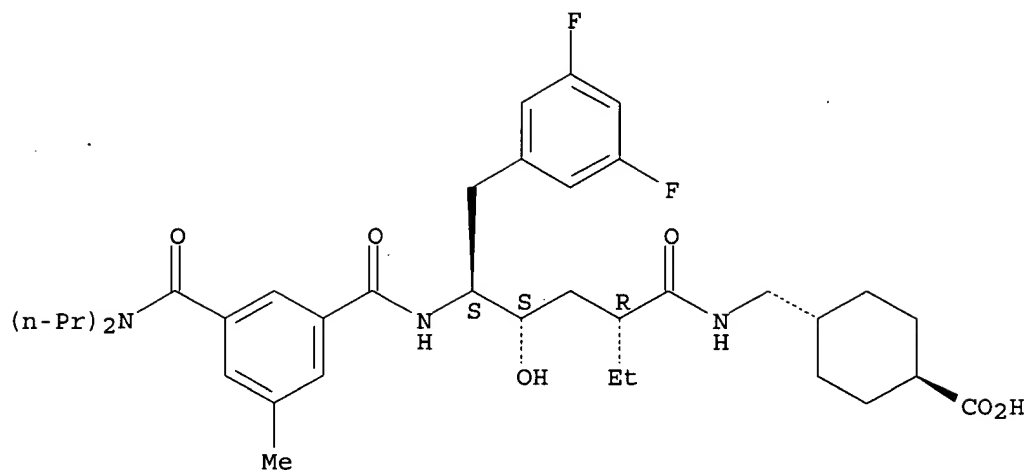
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES  
 (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 14 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN **362480-26-0** REGISTRY

CN Cyclohexanecarboxylic acid, 4-[[[(4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF **C34 H45 F2 N3 O6**

SR CA

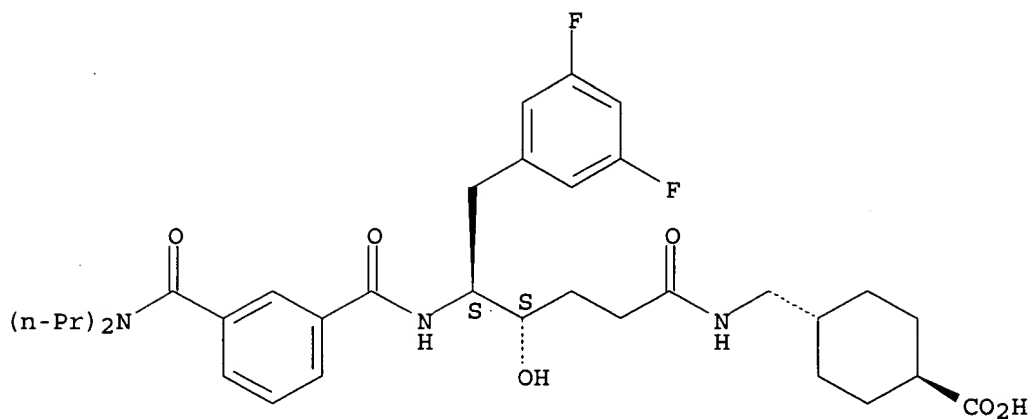
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:146499

REFERENCE 2: 138:107007

REFERENCE 3: 135:273220

L18 ANSWER 15 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-24-8 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[3-(dimethylamino)propyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C33 H48 F2 N4 O4

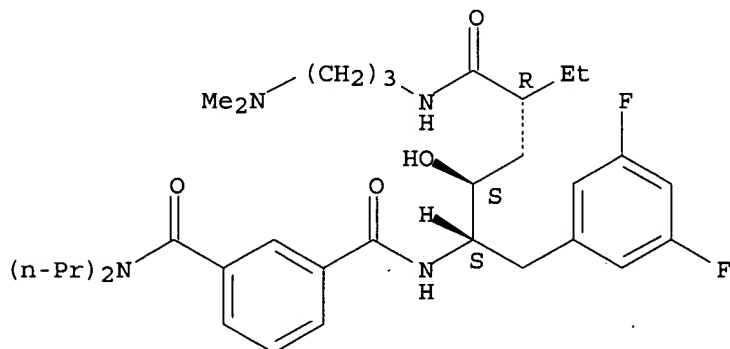
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 16 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-23-7 REGISTRY

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-  
[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-  
oxohexyl]amino]methyl]-, methyl ester, trans- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C37 H51 F2 N3 O6

SR CA

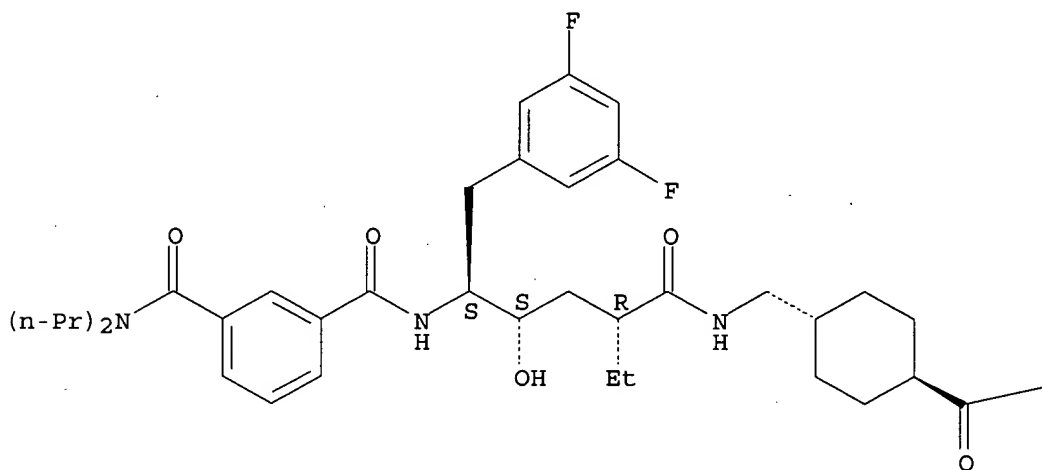
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES  
(Uses)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

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## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

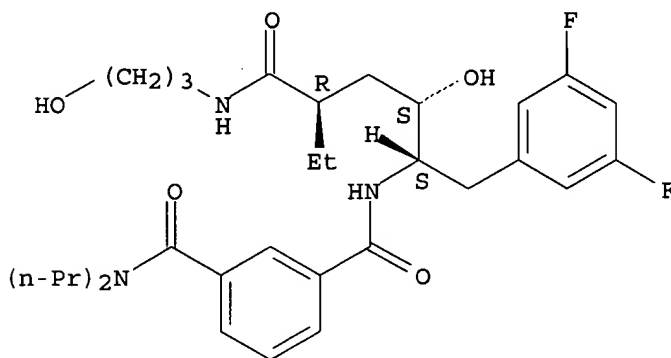
2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 17 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 362480-22-6 REGISTRY  
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[(3-hydroxypropyl)amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C31 H43 F2 N3 O5  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

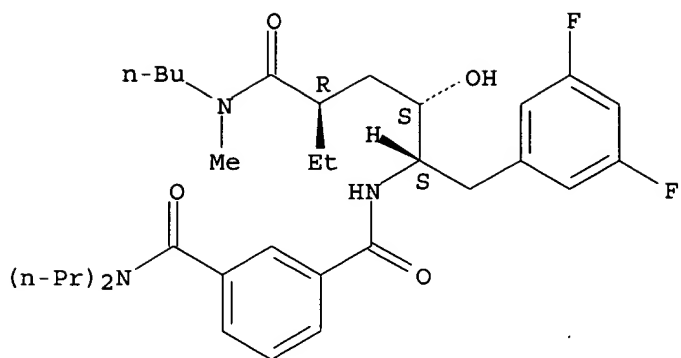
REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 18 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 362480-21-5 REGISTRY  
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-4-[(butylmethylamino)carbonyl]-1-[(3,5-difluorophenyl)methyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C33 H47 F2 N3 O4  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 19 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-20-4 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[2-(dimethylamino)ethyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C32 H46 F2 N4 O4

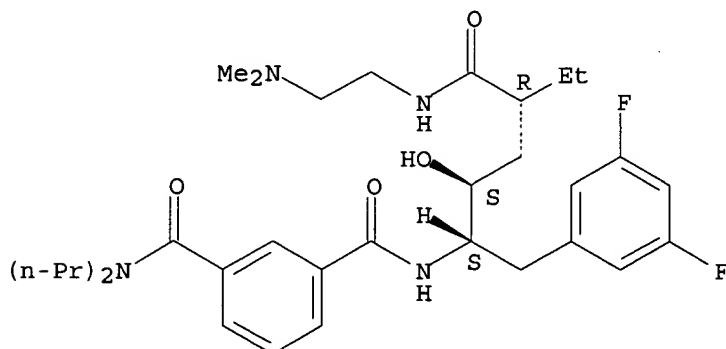
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

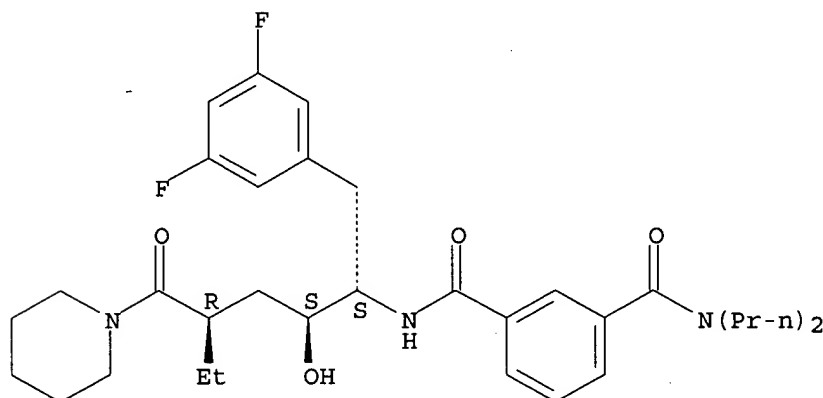
2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 20 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 362480-19-1 REGISTRY  
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-(1-piperidinylcarbonyl)hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C33 H45 F2 N3 O4  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

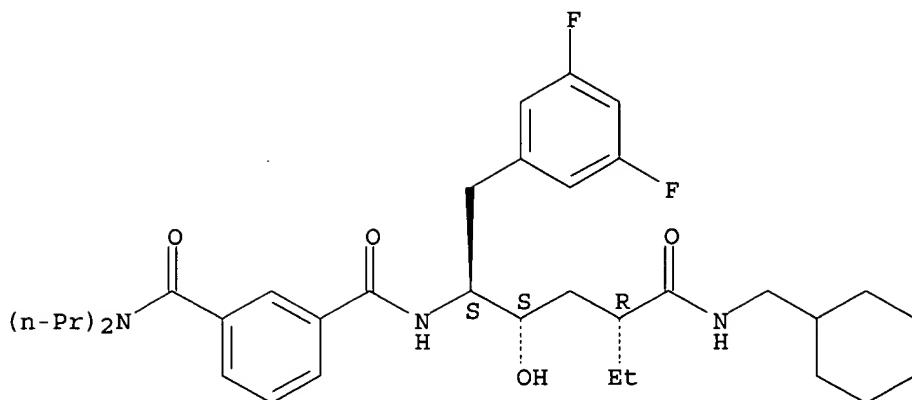
2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 21 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 362480-18-0 REGISTRY  
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-4-[[[(cyclohexylmethyl)amino]carbonyl]-1-[(3,5-difluorophenyl)methyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C35 H49 F2 N3 O4  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 22 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN **362480-17-9** REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[[[(phenylmethyl)amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF **C35 H43 F2 N3 O4**

SR CA

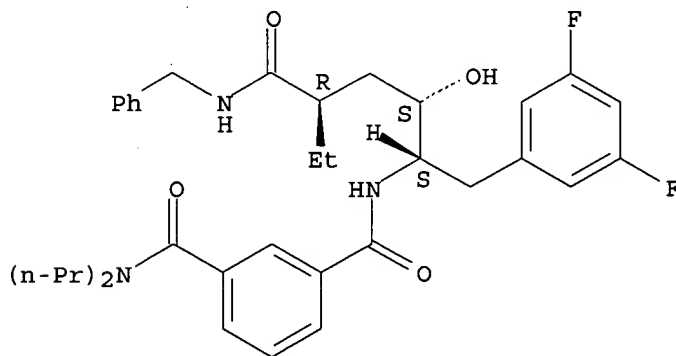
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:374417

REFERENCE 2: 140:146499

REFERENCE 3: 138:107007

REFERENCE 4: 135:273220

L18 ANSWER 23 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-16-8 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[[2-methylpropyl]amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C32 H45 F2 N3 O4

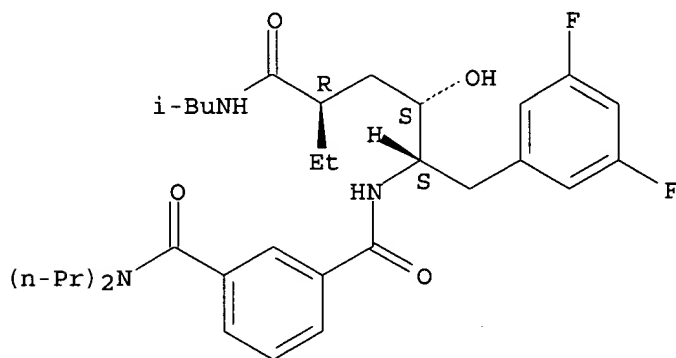
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 24 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-15-7 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-4-[(butylamino)carbonyl]-1-[(3,5-difluorophenyl)methyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C32 H45 F2 N3 O4

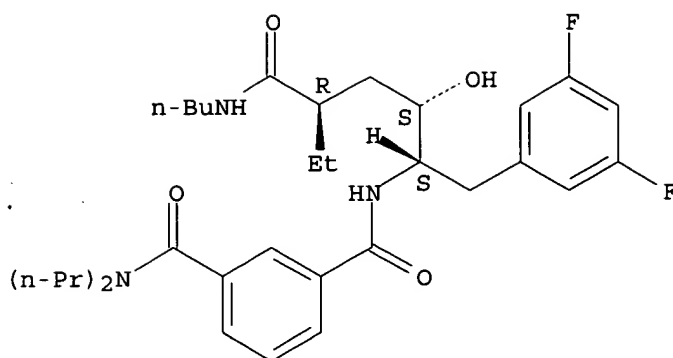
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:107007

REFERENCE 2: 135:273220

L18 ANSWER 25 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-14-6 REGISTRY

CN Octanoic acid, 8-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-  
[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-  
oxohexyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C36 H51 F2 N3 O6

SR CA

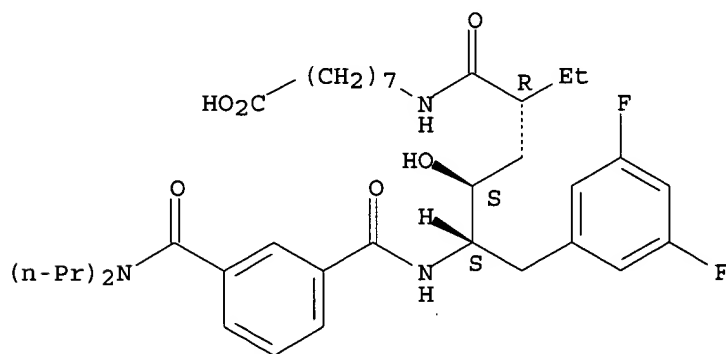
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES  
(Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:146499

REFERENCE 2: 138:107007

REFERENCE 3: 135:273220

L18 ANSWER 26 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-13-5 REGISTRY

CN  $\beta$ -Alanine, N-[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C31 H41 F2 N3 O6

SR CA

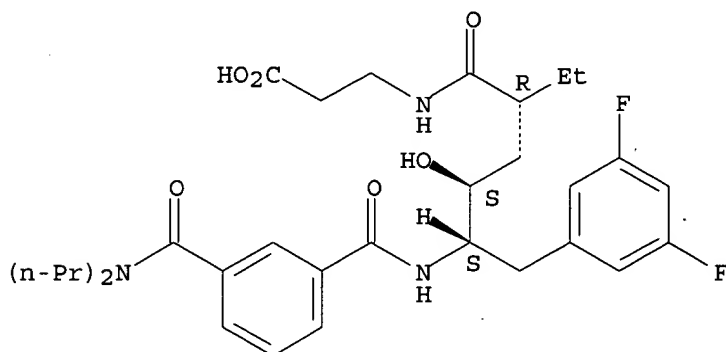
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:374417

REFERENCE 2: 140:146499

REFERENCE 3: 138:107007

REFERENCE 4: 135:273220

L18 ANSWER 27 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-12-4 REGISTRY

CN Butanoic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C32 H43 F2 N3 O6

SR CA

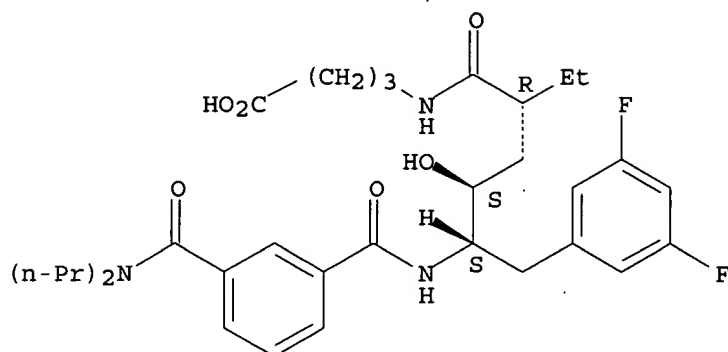
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:146499

REFERENCE 2: 138:107007

REFERENCE 3: 135:273220

L18 ANSWER 28 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-11-3 REGISTRY

CN Pentanoic acid, 5-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C33 H45 F2 N3 O6

SR CA

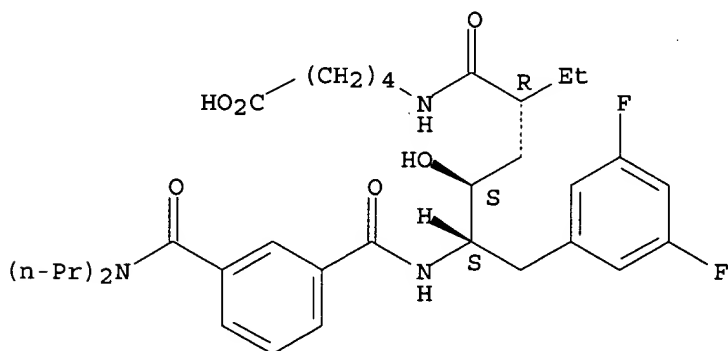
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:374417

REFERENCE 2: 140:146499

REFERENCE 3: 138:107007

REFERENCE 4: 135:273220

L18 ANSWER 29 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362480-00-0 REGISTRY

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-2-methyl-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C35 H47 F2 N3 O6

SR CA

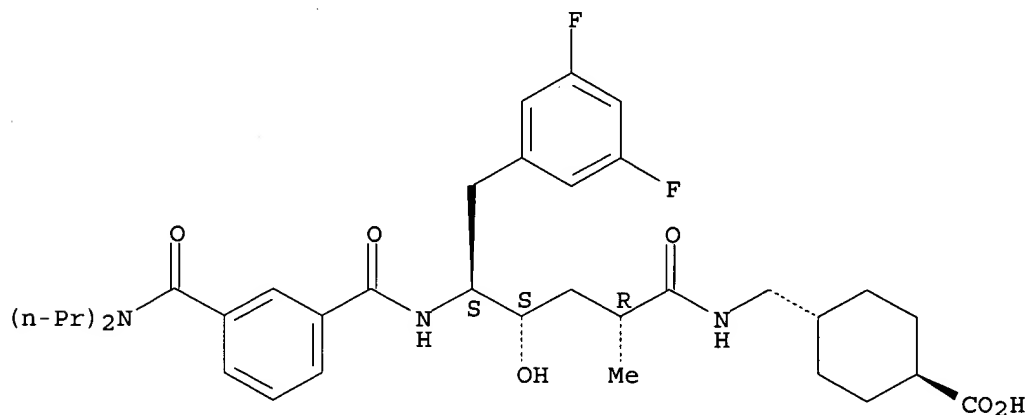
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:146499

REFERENCE 2: 138:107007

REFERENCE 3: 135:273220

L18 ANSWER 30 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362479-99-0 REGISTRY

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-



[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxo-2-propylhexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C37 H51 F2 N3 O6

SR CA

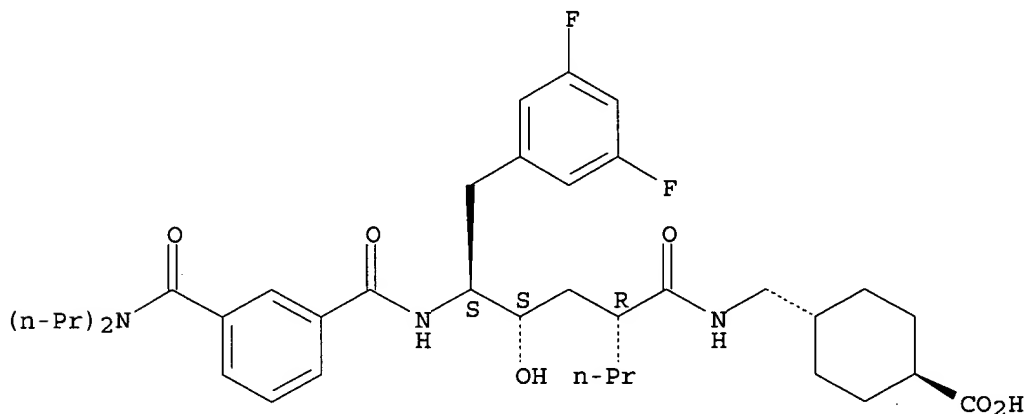
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:146499

REFERENCE 2: 138:107007

REFERENCE 3: 135:273220

L18 ANSWER 31 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362479-98-9 REGISTRY

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxo-2-(phenylmethyl)hexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C41 H51 F2 N3 O6

SR CA

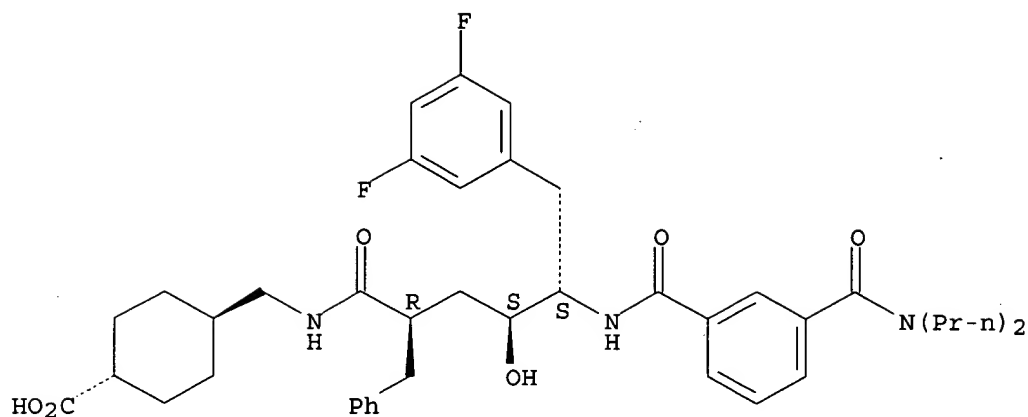
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:146499

REFERENCE 2: 138:107007

REFERENCE 3: 135:273220

L18 ANSWER 32 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN **362479-97-8** REGISTRY

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-  
[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-  
oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF **C36 H49 F2 N3 O6**

SR CA

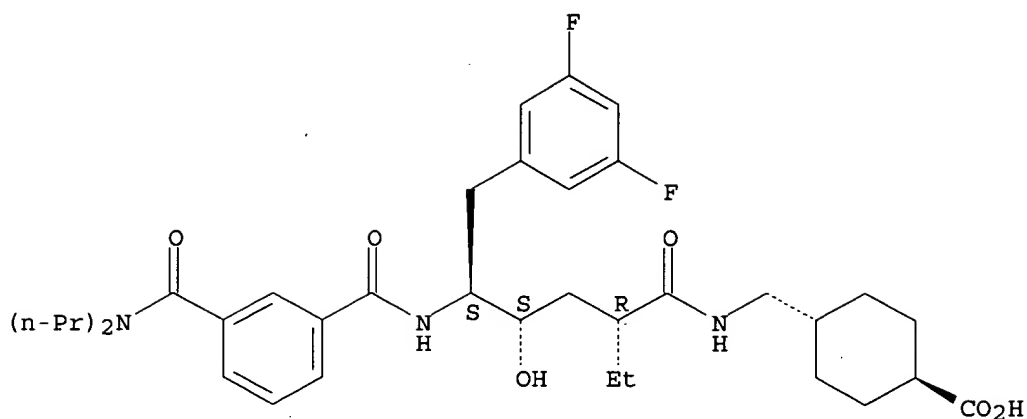
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT  
(Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:374417

REFERENCE 2: 140:146499

REFERENCE 3: 138:107007

REFERENCE 4: 135:273220

L18 ANSWER 33 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362479-96-7 REGISTRY

CN Octanoic acid, 8-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-  
[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-  
oxohexyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C37 H53 F2 N3 O6

SR CA

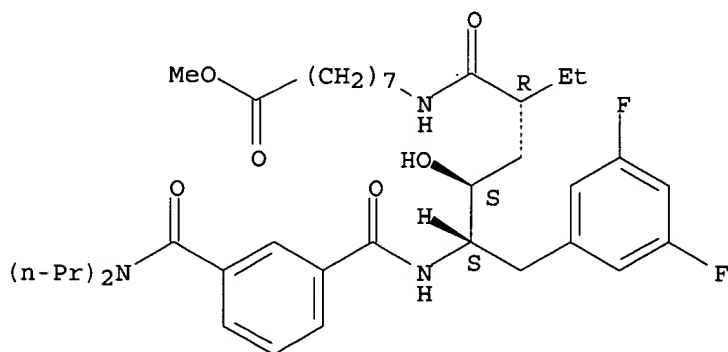
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT  
(Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:146499

REFERENCE 2: 138:107007

REFERENCE 3: 135:273220

L18 ANSWER 34 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362479-95-6 REGISTRY

CN Hexanoic acid, 6-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[[[3-(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C34 H47 F2 N3 O6

SR CA

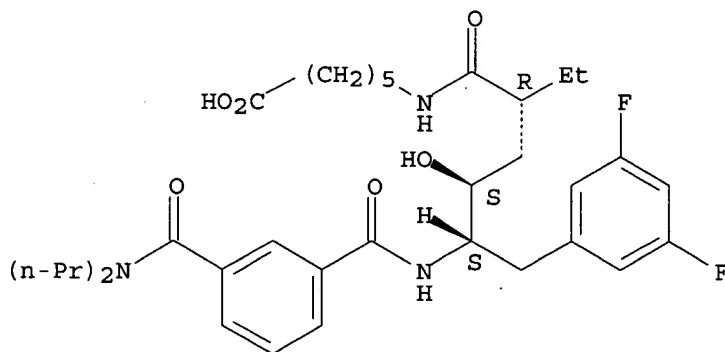
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

DT.CA CAPLUS document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:146499

REFERENCE 2: 138:107007

REFERENCE 3: 135:273220

L18 ANSWER 35 OF 35 REGISTRY COPYRIGHT 2005 ACS on STN

RN 362479-94-5 REGISTRY

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[(1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-3,5-dimethoxycyclohexyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

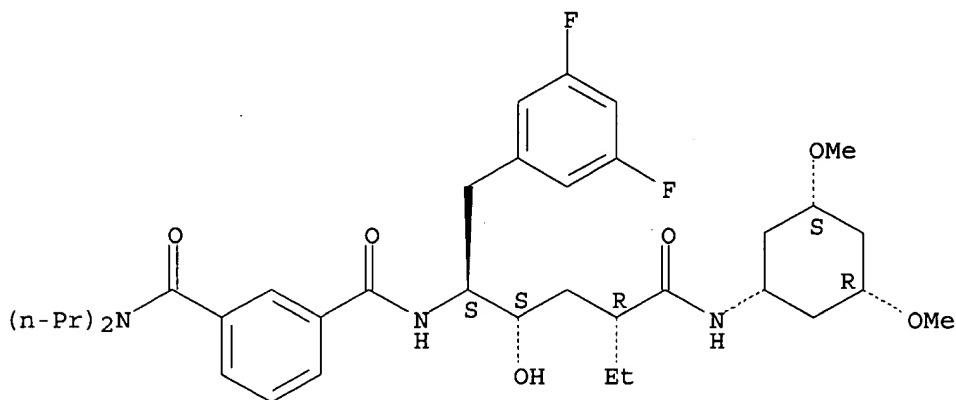
FS STEREOSEARCH

MF C36 H51 F2 N3 O6

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
 DT.CA CAPLUS document type: Journal; Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT  
 (Reactant or reagent); USES (Uses)  
 RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:374417  
 REFERENCE 2: 140:146499  
 REFERENCE 3: 138:107007  
 REFERENCE 4: 135:273220

=> fil hcaplus

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FILE COVERS 1907 - 16 Feb 2005 VOL 142 ISS 8  
 FILE LAST UPDATED: 15 Feb 2005 (20050215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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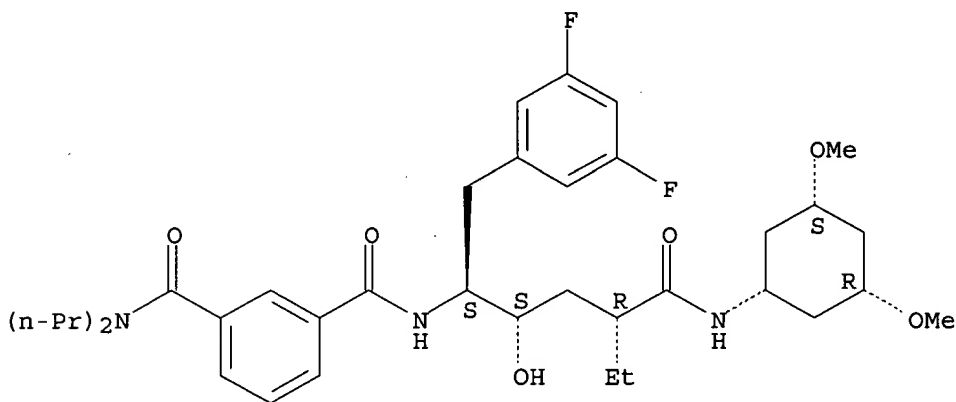
L26 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:729833 HCAPLUS  
DN 141:374417  
ED Entered STN: 08 Sep 2004  
TI Modeling the binding affinities of  $\beta$ -secretase inhibitors:  
application to subsite specificity  
AU Rajamani, Ramkumar; Reynolds, Charles H.  
CS Johnson & Johnson Pharmaceutical Research and Development, Spring House,  
PA, 19477-0776, USA  
SO Bioorganic & Medicinal Chemistry Letters (2004), 14(19), 4843-4846  
CODEN: BMCLE8; ISSN: 0960-894X  
PB Elsevier B.V.  
DT Journal  
LA English  
CC 1-3 (Pharmacology)  
Section cross-reference(s): 7  
AB A new linear binding affinity model has been developed for hydroxyethylene  
based inhibitors of  $\beta$ -secretase (BACE). This model is an improvement  
over a previously published model, and has been applied to a series of  
analogues not included in the training set. The linear model has been used  
to study subsite specificity for the P2 through P2' positions, and to  
evaluate a small number of C-terminal analogues. The predicted rankings are in  
good agreement with experiment and support using this model for structure-based  
design of BACE inhibitors.  
ST beta secretase inhibitor mol modeling  
IT Binding energy  
Molecular modeling  
(modeling binding affinities of  $\beta$ -secretase inhibitors)  
IT 158736-49-3,  $\beta$ -Secretase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(modeling binding affinities of  $\beta$ -secretase inhibitors)  
IT 314266-76-7, OM99-2 362479-94-5 362479-97-8  
362480-11-3 362480-13-5 362480-17-9  
364635-79-0 364635-80-3 364635-81-4 364635-82-5 364635-83-6  
364635-84-7 364635-85-8 364635-86-9 364635-90-5 440326-00-1  
452898-62-3, OM00-3  
RL: PAC (Pharmacological activity); BIOL (Biological study)  
(modeling binding affinities of  $\beta$ -secretase inhibitors)  
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Gosh, A; J Med Chem 2001, V44, P2865  
(2) Hom, R; J Med Chem 2004, V47, P158 HCAPLUS  
(3) Hong, L; Biochemistry 2002, V41, P10963 HCAPLUS  
(4) Hong, L; Science 2000, V290, P150 HCAPLUS  
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(6) Jorgensen, W; J Am Chem Soc 1988, V110, P1657 HCAPLUS  
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(9) Roggo, A; Curr Top Med Chem 2002, V2, P359  
(10) Schrodinger; First Discovery, Version 2.0 2001  
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(13) Sinha, S; Proc Natl Acad Sci U S A 1999, V96, P11049 HCAPLUS  
(14) Tounge, B; J Med Chem 2003, V46, P2074 HCAPLUS  
(15) Tung, J; J Med Chem 2002, V45, P259 HCAPLUS  
(16) Turner, R; Biochemistry 2001, V40, P10002  
(17) Varghese, J; J Med Chem 2003, V46, P1  
(18) Vassar, R; Neuron 2000, V27, P419 HCAPLUS  
IT 362479-94-5 362479-97-8 362480-11-3  
362480-13-5 362480-17-9  
RL: PAC (Pharmacological activity); BIOL (Biological study)

(modeling binding affinities of  $\beta$ -secretase inhibitors)

RN 362479-94-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[(1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-3,5-dimethoxycyclohexyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

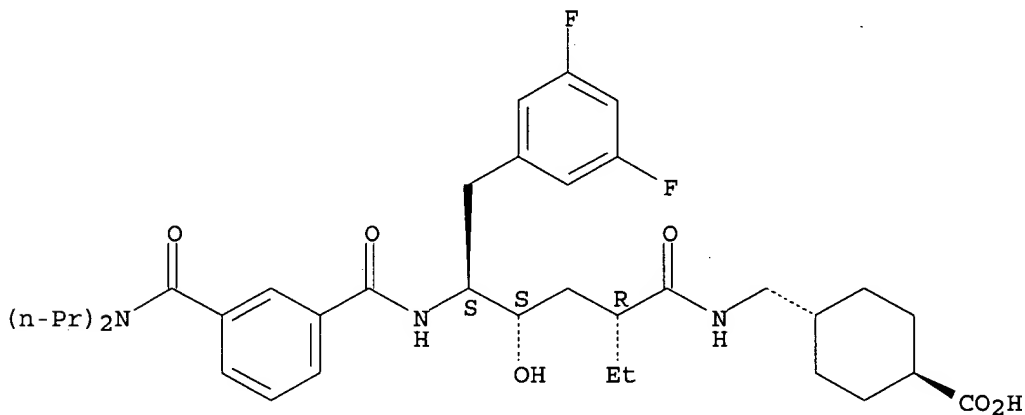
Absolute stereochemistry.



RN 362479-97-8 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

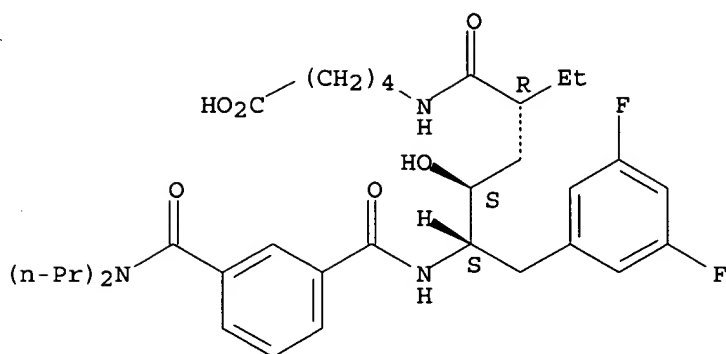
Absolute stereochemistry.



RN 362480-11-3 HCAPLUS

CN Pentanoic acid, 5-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

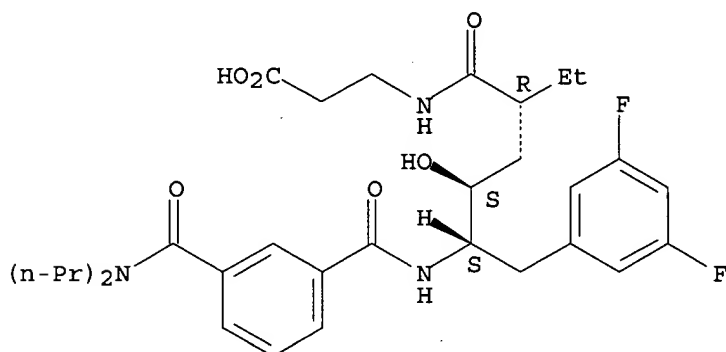
Absolute stereochemistry.



RN 362480-13-5 HCAPLUS

CN  $\beta$ -Alanine, N-[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]-(9CI) (CA INDEX NAME)

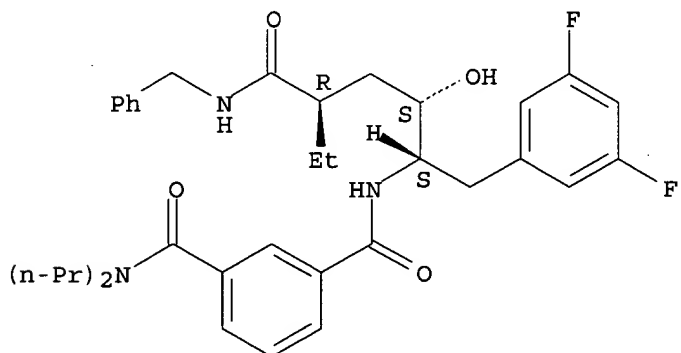
Absolute stereochemistry.



RN 362480-17-9 HCAPLUS

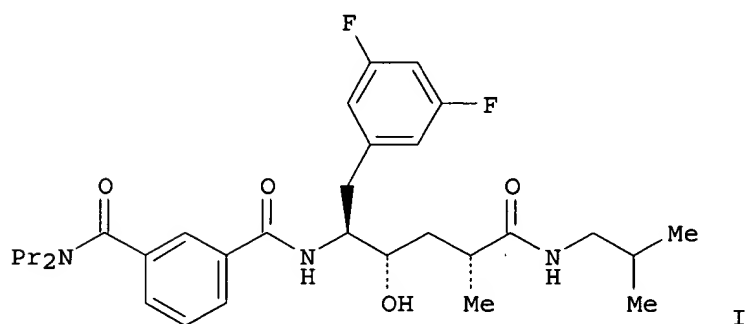
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[[[(phenylmethyl)amino]carbonyl]hexyl]-N,N-dipropyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.





DN 140:146499  
ED Entered STN: 10 Dec 2003  
TI Design and Synthesis of Hydroxyethylene-Based Peptidomimetic Inhibitors of Human  $\beta$ -Secretase  
AU Hom, Roy K.; Gailunas, Andrea F.; Mamo, Shumeye; Fang, Larry Y.; Tung, Jay S.; Walker, Donald E.; Davis, David; Thorsett, Eugene D.; Jewett, Nancy E.; Moon, Joseph B.; John, Varghese  
CS Elan, South San Francisco, CA, 94080, USA  
SO Journal of Medicinal Chemistry (2004), 47(1), 158-164  
CODEN: JMCMAR; ISSN: 0022-2623  
PB American Chemical Society  
DT Journal  
LA English  
CC 34-3 (Amino Acids, Peptides, and Proteins)  
Section cross-reference(s): 1, 7  
GI



AB The hydroxyethylene (HE) transition state isostere was developed as a scaffold to provide potent, small mol. inhibitors of human  $\beta$ -secretase (BACE). The previous work on the statine series proved critical to the discovery of HE structure-activity relationships. In this work, peptidomimetic I with the N-terminal isophthalamide proved to be the most potent HE inhibitor ( $IC_{50} = 30$  nM) toward BACE. Unlike the statine series, the authors identified HE inhibitors without carboxylic acids on the C terminus, leading to enhanced cell penetration and making them attractive candidates for further drug development in Alzheimer's disease.

ST hydroxyethylene isostere peptidomimetic prepn inhibitor beta secretase

IT Structure-activity relationship  
(enzyme-inhibiting; preparation and biol. activity of hydroxyethylene-based peptidomimetics as inhibitors of human  $\beta$ -secretase)

IT Human  
Peptidomimetics  
(preparation and biol. activity of hydroxyethylene-based peptidomimetics as inhibitors of human  $\beta$ -secretase)

IT Alzheimer's disease  
(preparation of hydroxyethylene-based peptidomimetics as inhibitors of human  $\beta$ -secretase and as potential drug candidates)

IT 158736-49-3,  $\beta$ -Secretase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation and biol. activity of hydroxyethylene-based peptidomimetics as inhibitors of human  $\beta$ -secretase)

IT 362479-93-4P 362479-94-5P 362479-95-6P  
362479-96-7P 362479-97-8P 362479-98-9P  
362479-99-0P 362480-00-0P 362480-11-3P  
362480-12-4P 362480-13-5P 362480-14-6P  
362480-17-9P 362480-25-9P 362480-26-0P

651054-94-3P 651054-95-4P 651054-96-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation)

(preparation and biol. activity of hydroxyethylene-based peptidomimetics as  
inhibitors of human  $\beta$ -secretase)

IT 485389-88-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and biol. activity of hydroxyethylene-based peptidomimetics as  
inhibitors of human  $\beta$ -secretase)

IT 485389-90-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation and biol. activity of hydroxyethylene-based peptidomimetics as  
inhibitors of human  $\beta$ -secretase)

IT 56-12-2, reactions 60-32-2 100-46-9, Benzyl amine, reactions  
107-95-9,  $\beta$ -Alanine 660-88-8 1002-57-9 1197-18-8 59080-49-8  
126926-35-0, N,N-Dipropylisophthalamide 337531-15-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation hydroxyethylene-based peptidomimetics)

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Askin, D; J Org Chem 1992, V57, P2771 HCAPLUS
- (2) Basha, A; Tetrahedron Lett 1977, P4171 HCAPLUS
- (3) Cai, H; Nat Neurosci 2001, V4, P233 HCAPLUS
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- (9) Greenlee, W; Med Res Rev 1990, V10(2), P173 HCAPLUS
- (10) Hom, R; J Med Chem 2003, V46, P1799 HCAPLUS
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- (17) Selkoe, D; Nature 1999, V399(Suppl 6738), PA23
- (18) Sinha, S; Nature 1999, V402, P537 HCAPLUS
- (19) Sinha, S; Proc Natl Acad Sci U S A 1999, V96, P11049 HCAPLUS
- (20) Tung, J; J Med Chem 2002, V45, P259 HCAPLUS
- (21) Vassar, R; Science 1999, V286, P735 HCAPLUS
- (22) Yan, R; Nature 1999, V402, P533 HCAPLUS

IT 362479-94-5P 362479-95-6P 362479-96-7P

362479-97-8P 362479-98-9P 362479-99-0P

362480-00-0P 362480-11-3P 362480-12-4P

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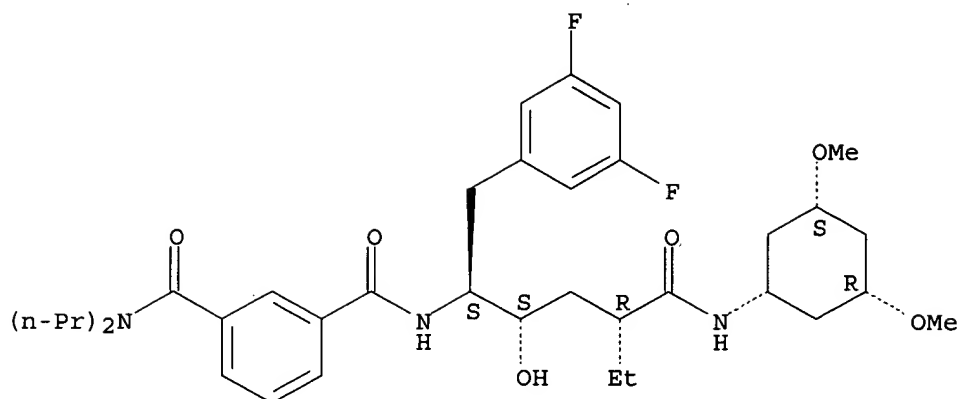
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation)

(preparation and biol. activity of hydroxyethylene-based peptidomimetics as  
inhibitors of human  $\beta$ -secretase)

RN 362479-94-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-  
[[[(1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-3,5-dimethoxycyclohexyl]amino]carbonyl]-2-  
hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

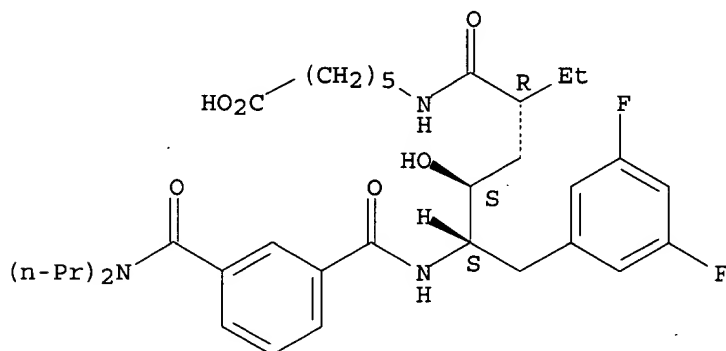
Absolute stereochemistry.



RN 362479-95-6 HCAPLUS

CN Hexanoic acid, 6-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

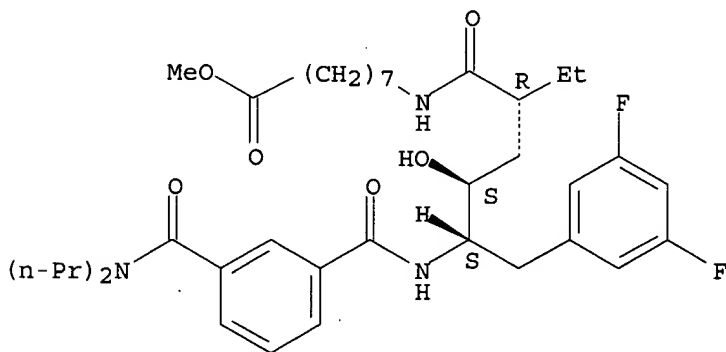
Absolute stereochemistry.



RN 362479-96-7 HCAPLUS

CN Octanoic acid, 8-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

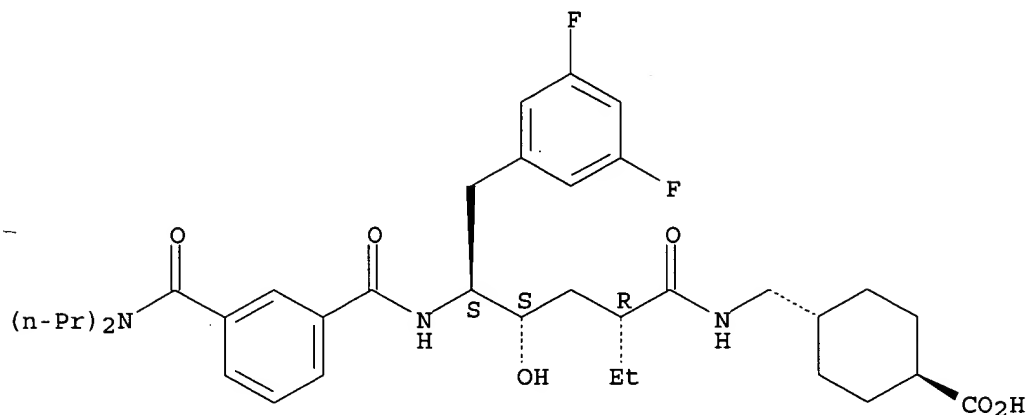


RN 362479-97-8 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-

[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

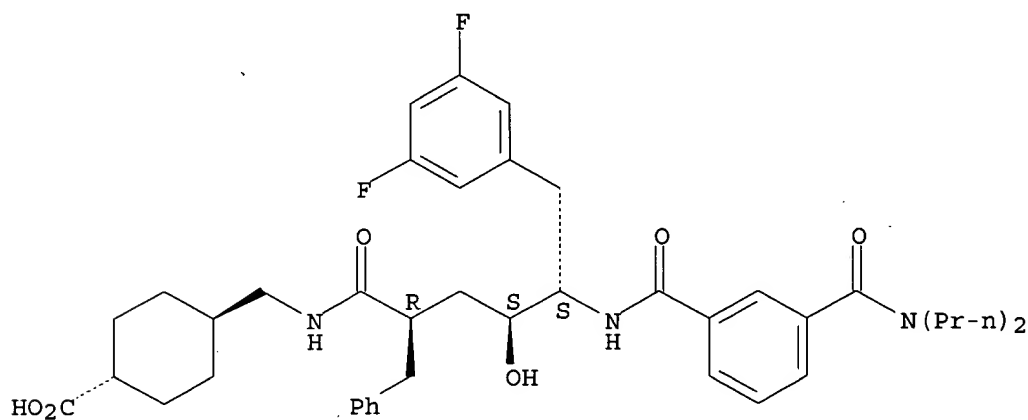
Absolute stereochemistry.



RN 362479-98-9 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxo-2-(phenylmethyl)hexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

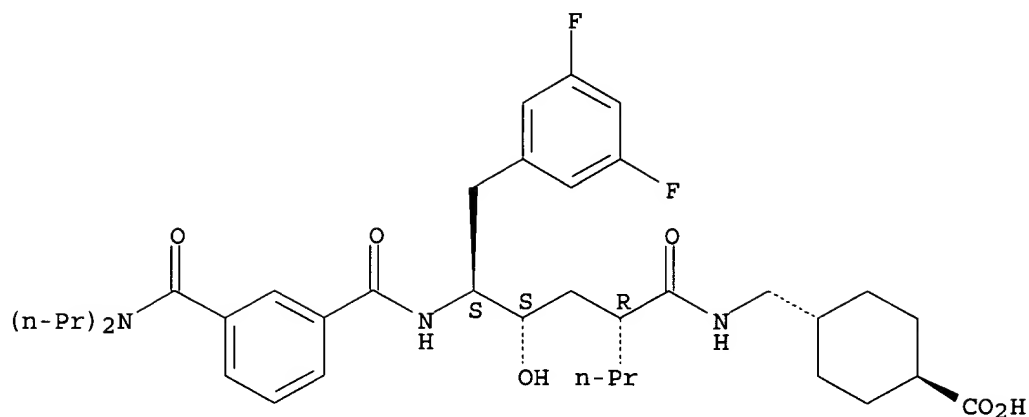
Absolute stereochemistry.



RN 362479-99-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxo-2-propylhexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

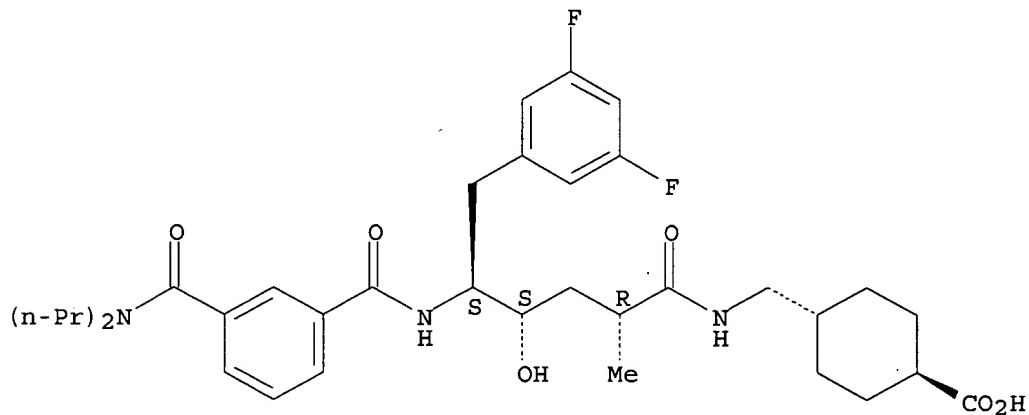
Absolute stereochemistry.



RN 362480-00-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-2-methyl-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

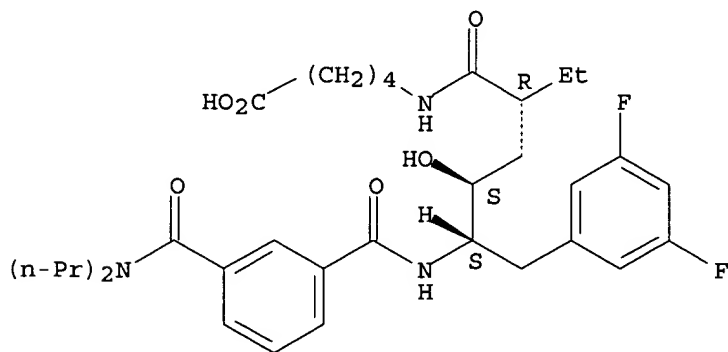
Absolute stereochemistry.



RN 362480-11-3 HCAPLUS

CN Pentanoic acid, 5-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

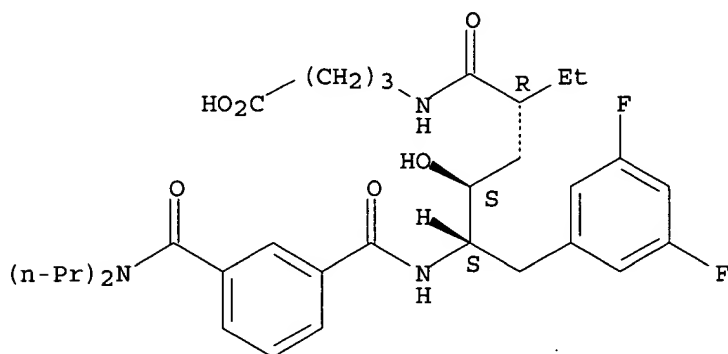
Absolute stereochemistry.



RN 362480-12-4 HCAPLUS

CN Butanoic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

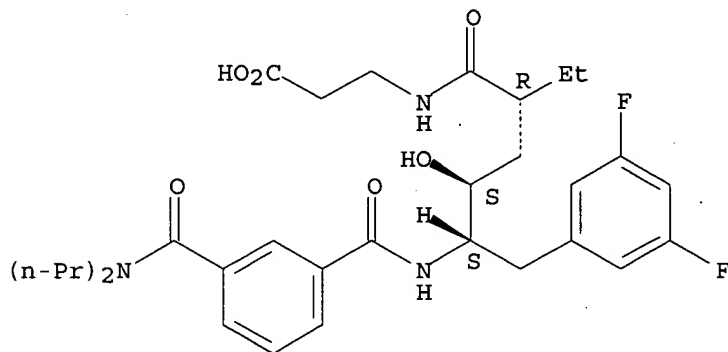
Absolute stereochemistry.



RN 362480-13-5 HCAPLUS

CN  $\beta$ -Alanine, N-[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]- (9CI) (CA INDEX NAME)

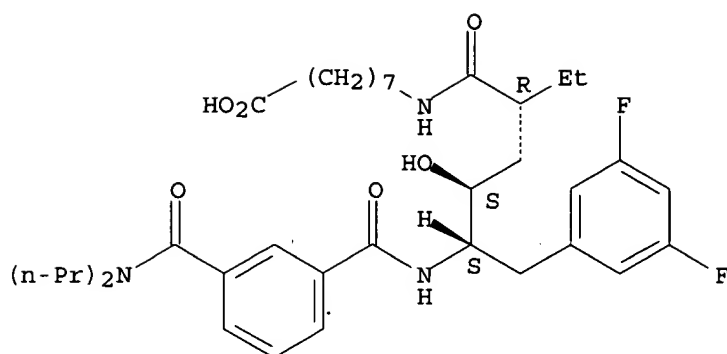
Absolute stereochemistry.



RN 362480-14-6 HCAPLUS

CN Octanoic acid, 8-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

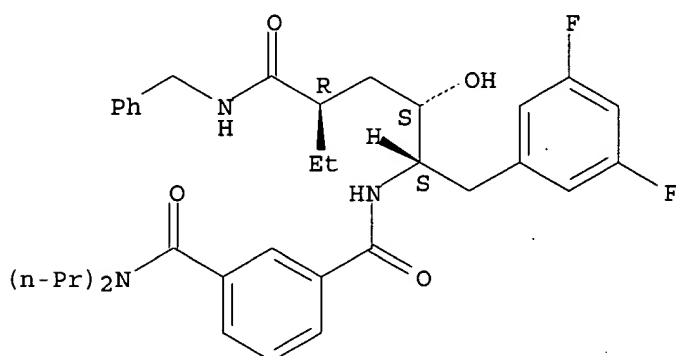
Absolute stereochemistry.



RN 362480-17-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'--[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[[[(phenylmethyl)amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

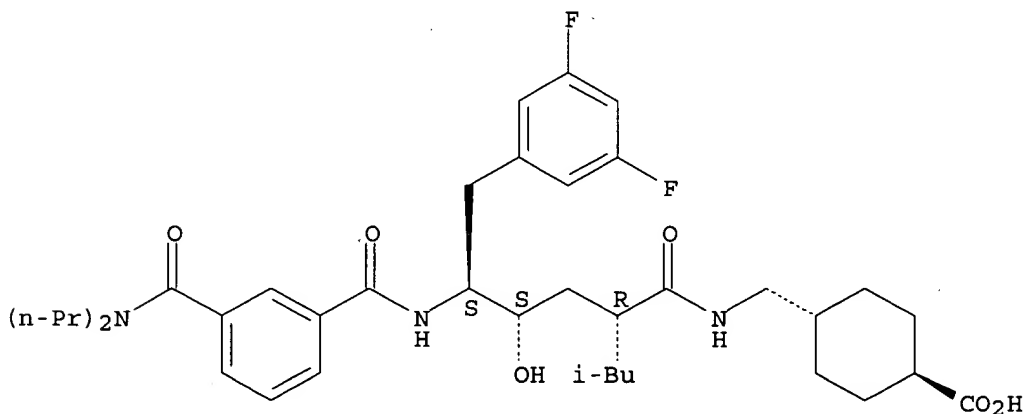
Absolute stereochemistry.



RN 362480-25-9 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-2-(2-methylpropyl)-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

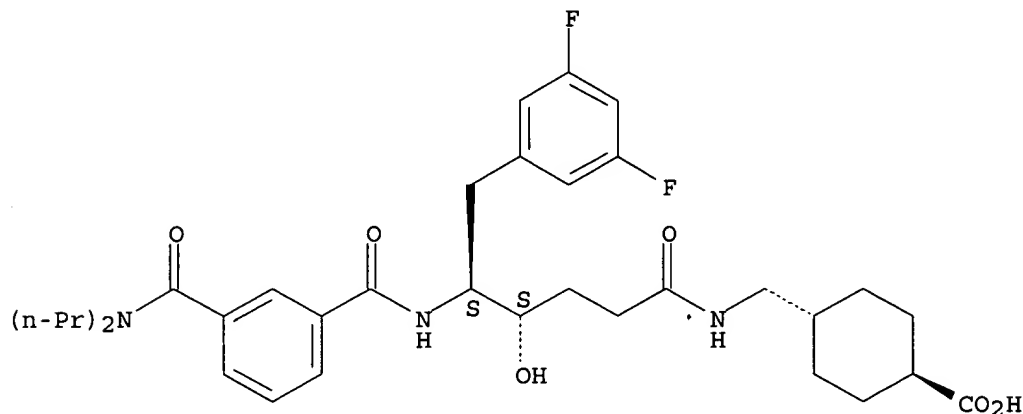
Absolute stereochemistry.



RN 362480-26-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L26 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:43054 HCAPLUS  
 DN 138:107007  
 ED Entered STN: 17 Jan 2003  
 TI Preparation of 5-amino-4-hydroxypentanoic acid derivatives for treating Alzheimer's disease  
 IN Hom, Roy; Mamo, Shumeye; Tung, Jay;  
 Gailunas, Andrea; John, Varghese; Fang, Lawrence *inventor*  
 PA USA  
 SO U.S. Pat. Appl. Publ., 113 pp., Cont.-in-part of U. S. Ser. No. 815,960.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM C07D333-52  
 ICS C07C229-00; C07D215-12; C07D213-53; C07D209-14  
 NCL 544335000; 546176000; 546329000; 548503000; 558418000; 549049000;  
 560038000  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 1, 7  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003013881	A1	20030116	US 2001-960634	20010921 <--
	US 2002019403	A1	20020214	US 2001-816876	20010323 <--
	US 2002022623	A1	20020221	US 2001-815960	20010323 <--
	US 6737420	B2	20040518		
	US 2004214846	A1	20041028	US 2004-847819	20040518 <--
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# CLASS

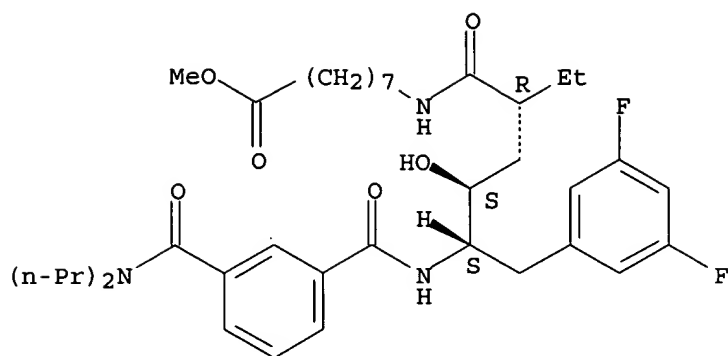
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C07D307/52; C07K005/02C; C07K007/02 <--  
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 C07D261/20; C07D295/12B1D2; C07D295/18B1F; C07D307/32C;  
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 US 2002022623 ECLA C07C237/22; C07C271/14; C07C271/18; C07C271/22;  
 C07D261/20; C07D295/12B1D2; C07D295/18B1F; C07D307/32C;  
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 C07D307/52; C07K005/02C; C07K007/02 <--  
 OS MARPAT 138:107007  
 AB The invention is directed toward substituted hydroxyethylene compds.  
 having the fragment -NHCHR<sub>1</sub>CH(OH)CH<sub>2</sub>CHR<sub>2</sub>CO- [R<sub>1</sub> = alkyl, alkylthioalkyl,  
 alkenyl, (hetero)aryl, (hetero)arylalkyl, heterocyclalkyl, or  
 heterocycl; R<sub>2</sub> = H, alkyl, cycloalkylalkyl, or (hetero)aryl] for use in  
 treating Alzheimer's disease and similar diseases. In an example,  
 N-[(1S,2S,4R)-1-(3,5-difluorobenzyl)-4-(syn,syn)-(3,5-  
 dimethoxycyclohexylcarbamoyl)-2-hydroxyhexyl]-N,N-dipropylisophthalamide  
 was prepared by solution-based methodol.  
 ST peptide aminohydroxypentanoic acid prepn treatment Alzheimers;  
 hydroxypentanoic acid amino prepn treatment Alzheimers  
 IT Amyloidosis  
 (Dutch-Type; preparation of amino(hydroxy)pentanoic acid derivs. for  
 treating Alzheimer's disease)  
 IT Brain, disease  
 (amyloid angiopathy; preparation of amino(hydroxy)pentanoic acid derivs. for  
 treating Alzheimer's disease)  
 IT Hemorrhage  
 (cerebral, hereditary; preparation of amino(hydroxy)pentanoic acid derivs.  
 for treating Alzheimer's disease)  
 IT Mental disorder  
 (cognitive; preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)  
 IT Brain, disease  
 (cortical basal degeneration; preparation of amino(hydroxy)pentanoic acid  
 derivs. for treating Alzheimer's disease)  
 IT Mental disorder  
 (dementia; preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)  
 IT Cognition  
 (disorder; preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)  
 IT Brain, disease  
 (hemorrhage, hereditary; preparation of amino(hydroxy)pentanoic acid derivs.  
 for treating Alzheimer's disease)  
 IT Alzheimer's disease  
 Down's syndrome  
 Human  
 Parkinson's disease  
 (preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)  
 IT Peptides, preparation  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)  
 IT Paralysis  
 (pseudobulbar; preparation of amino(hydroxy)pentanoic acid derivs. for  
 treating Alzheimer's disease)  
 IT Amyloid  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (β-; preparation of amino(hydroxy)pentanoic acid derivs. for treating

- Alzheimer's disease)  
 IT 158736-49-3,  $\beta$  Secretase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)
- IT 362479-96-7P  
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic  
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)
- IT 362480-11-3P 362480-12-4P 362480-13-5P  
 362480-14-6P 362480-15-7P 362480-16-8P  
 362480-17-9P 362480-18-0P 362480-19-1P  
 362480-20-4P 362480-21-5P 362480-22-6P  
 362480-23-7P 362480-24-8P 362480-25-9P  
 362480-26-0P 362480-27-1P 362480-28-2P  
 362480-29-3P 362480-30-6P 362480-31-7P  
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 485807-30-5P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)
- IT 60-32-2, 6 Aminohexanoic acid 78-84-2, Isobutyraldehyde 79-03-8,  
 Propionyl chloride 79-30-1, Isobutyryl chloride 90-82-4, +  
 Pseudoephedrine 116-11-0, 2 Methoxy 1 propene 638-29-9, Pentanoyl  
 chloride 645-45-4, 3 Phenylpropionyl chloride 701-54-2 1002-57-9, 8  
 Aminooctanoic acid 1197-18-8 1826-67-1, Vinylmagnesium bromide  
 6341-54-4 18469-52-8 68683-72-7 74733-38-3 83646-27-9  
 126456-43-7 126926-35-0, n n Dipropylisophthalamide acid 205445-52-9  
 337531-15-4 362480-40-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)
- IT 362479-88-7P 362479-89-8P 362479-90-1P 362479-91-2P 362479-92-3P  
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 362479-97-8P 362479-98-9P 362479-99-0P  
 362480-00-0P 362480-01-1P 362480-02-2P 362480-03-3P  
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 485389-89-7P 485389-90-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)
- IT 362479-96-7P  
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic  
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of amino(hydroxy)pentanoic acid derivs. for treating  
 Alzheimer's disease)
- RN 362479-96-7 HCAPLUS  
 CN Octanoic acid, 8-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[[3-  
 [(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-  
 oxohexyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 362480-11-3P 362480-12-4P 362480-13-5P  
 362480-14-6P 362480-15-7P 362480-16-8P  
 362480-17-9P 362480-18-0P 362480-19-1P  
 362480-20-4P 362480-21-5P 362480-22-6P  
 362480-23-7P 362480-24-8P 362480-25-9P  
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 362480-38-4P 362480-39-5P

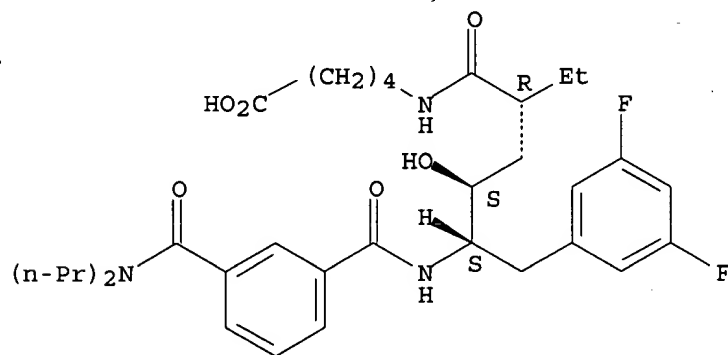
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of amino(hydroxy)pentanoic acid derivs. for treating Alzheimer's disease)

RN 362480-11-3 HCAPLUS

CN Pentanoic acid, 5-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

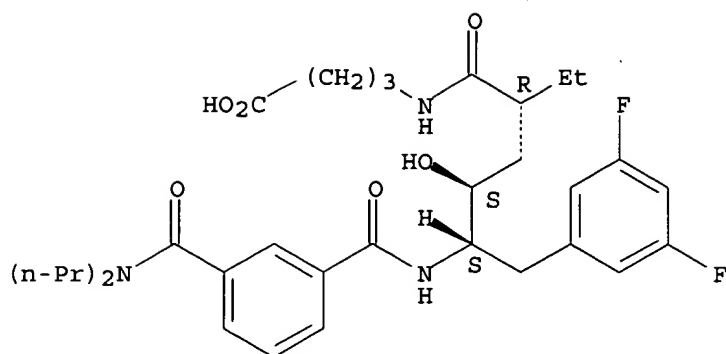
Absolute stereochemistry.



RN 362480-12-4 HCAPLUS

CN Butanoic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

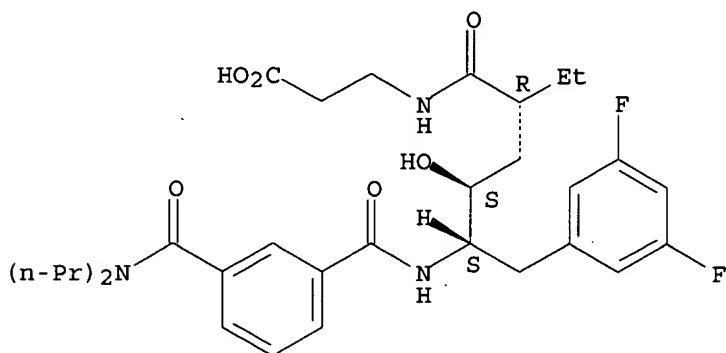
Absolute stereochemistry.



RN 362480-13-5 HCAPLUS

CN  $\beta$ -Alanine, N-[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]-(9CI) (CA INDEX NAME)

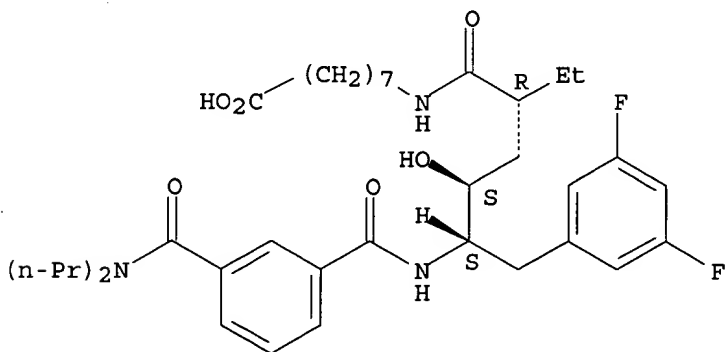
Absolute stereochemistry.



RN 362480-14-6 HCAPLUS

CN Octanoic acid, 8-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

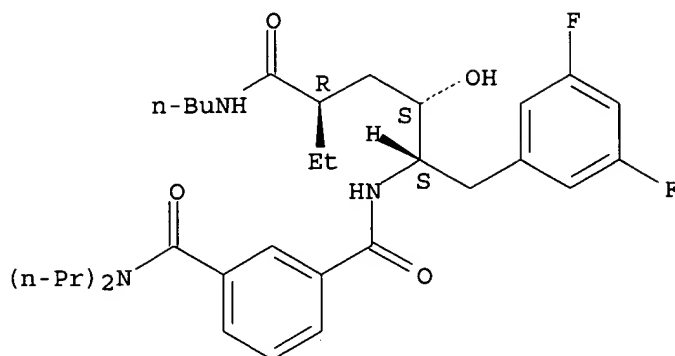


RN 362480-15-7 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-4-[(butylamino)carbonyl]-1-[(3,5-difluorophenyl)methyl]-2-hydroxyhexyl]-N,N-dipropyl-(9CI) (CA INDEX NAME)

NAME)

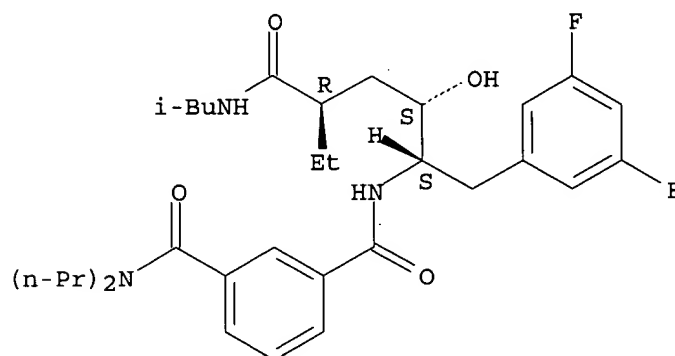
Absolute stereochemistry.



RN 362480-16-8 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[[[(2-methylpropyl)amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

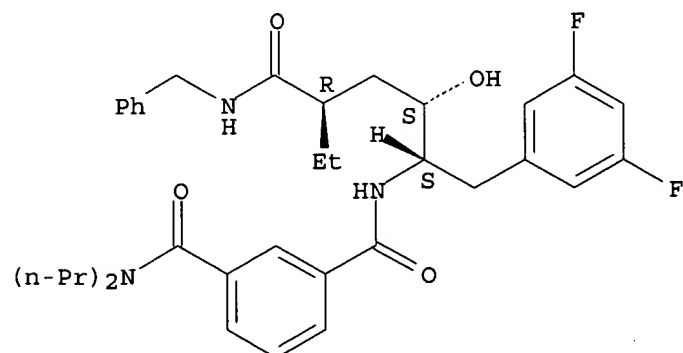
Absolute stereochemistry.



RN 362480-17-9 HCAPLUS

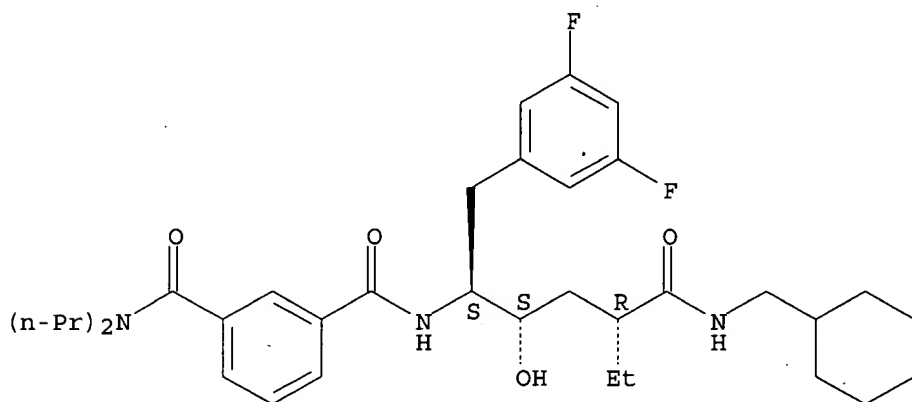
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[[[(phenylmethyl)amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



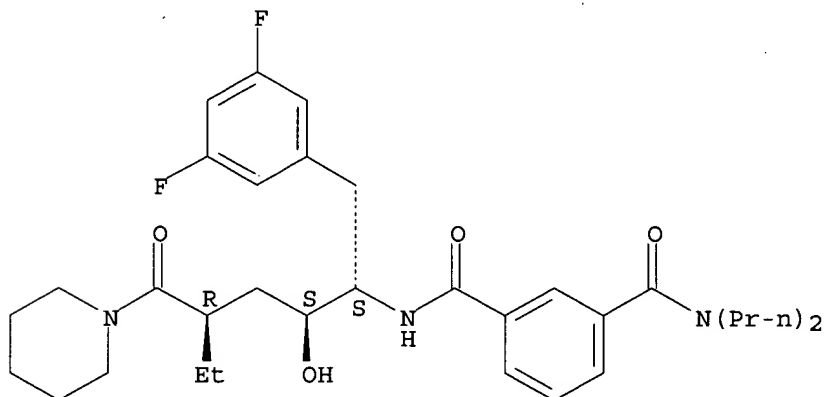
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 CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-4-[[[(cyclohexylmethyl)amino]carbonyl]-1-[(3,5-difluorophenyl)methyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.



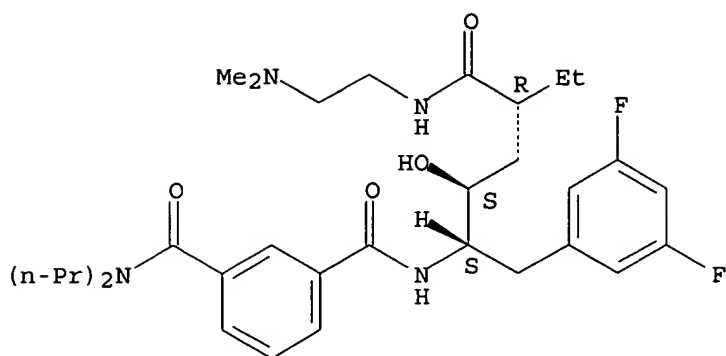
RN 362480-19-1 HCAPLUS  
 CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-(1-piperidinylcarbonyl)hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 362480-20-4 HCAPLUS  
 CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[2-(dimethylamino)ethyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

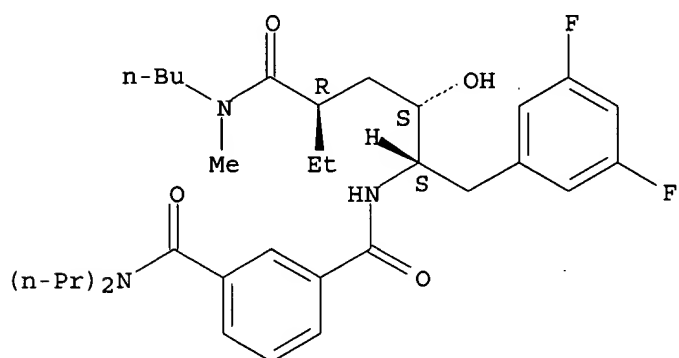
Absolute stereochemistry.



RN 362480-21-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-4-[(butylmethylamino)carbonyl]-1-[(3,5-difluorophenyl)methyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

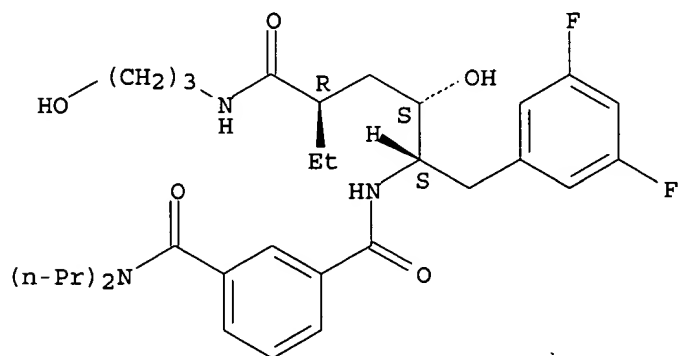
Absolute stereochemistry.



RN 362480-22-6 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[[[(3-hydroxypropyl)amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



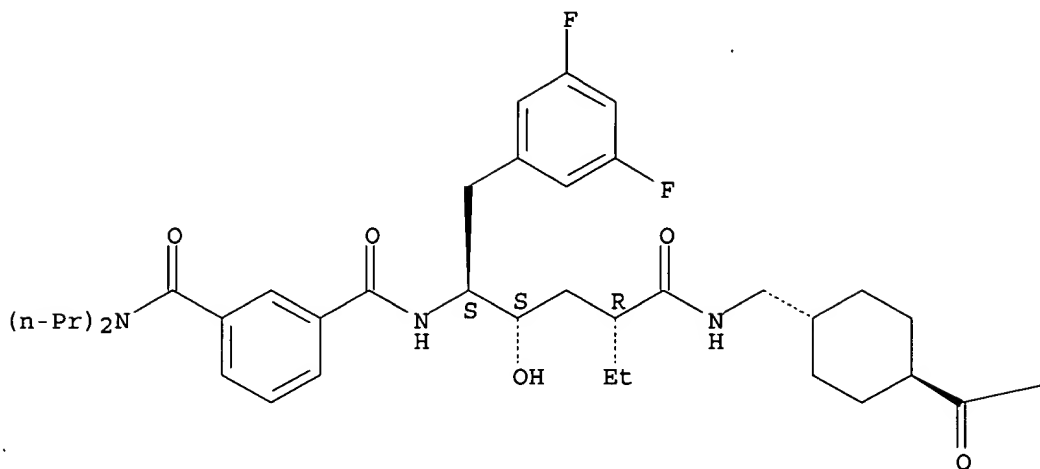
RN 362480-23-7 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-

oxohexyl]amino]methyl]-, methyl ester, trans- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

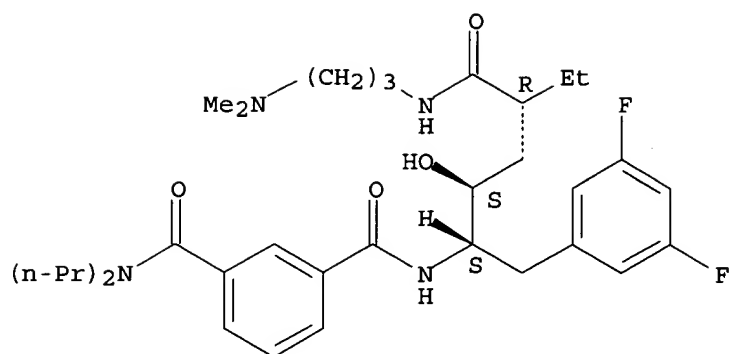
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RN 362480-24-8 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[3-(dimethylamino)propyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

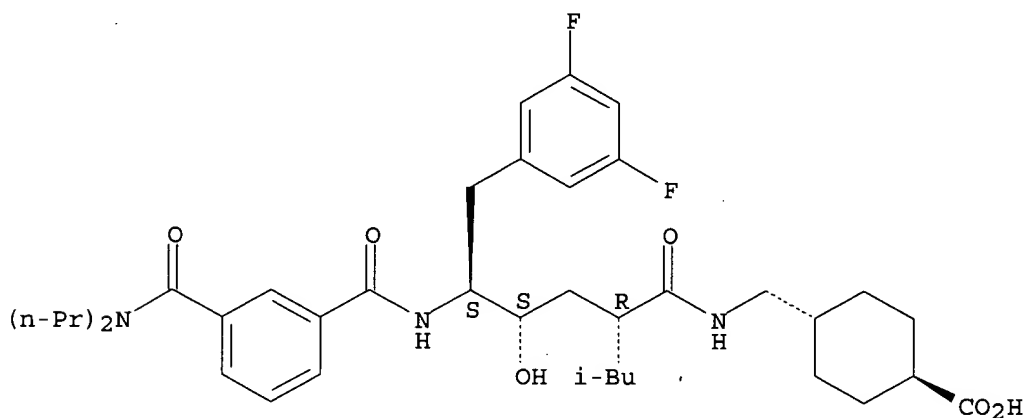




RN 362480-25-9 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-2-(2-methylpropyl)-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

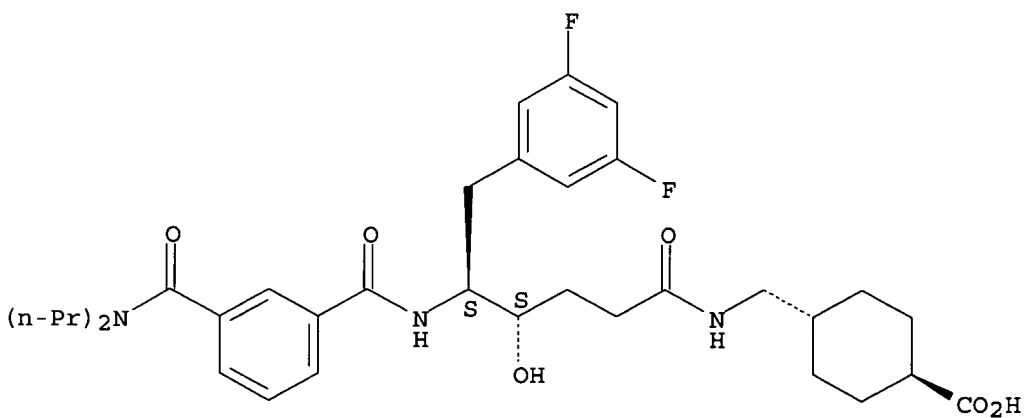
Absolute stereochemistry.



RN 362480-26-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

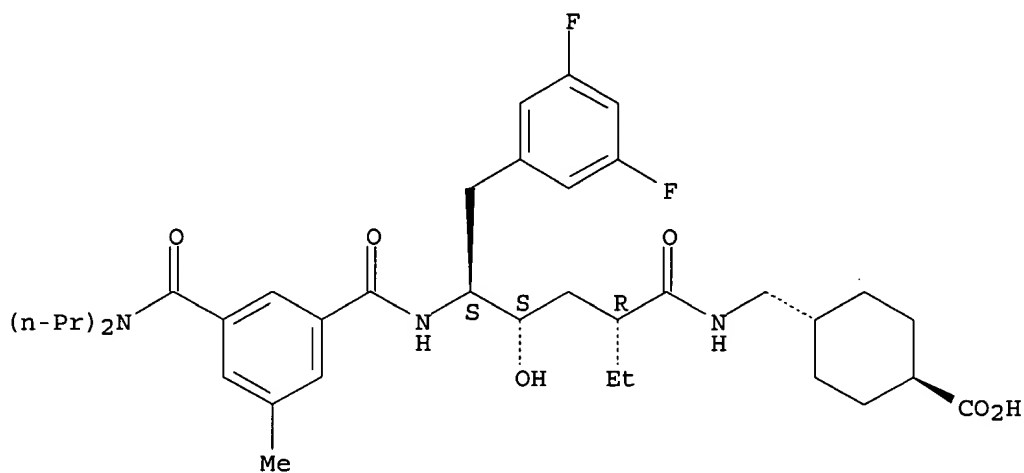
Absolute stereochemistry.



RN 362480-27-1 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]-5-methylbenzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

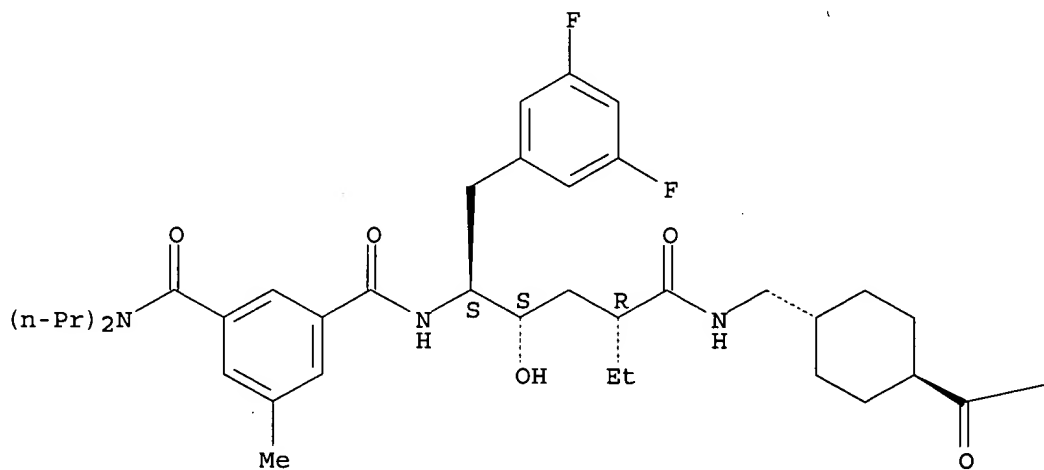


RN 362480-28-2 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]-5-methylbenzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]methyl]-, methyl ester, trans- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



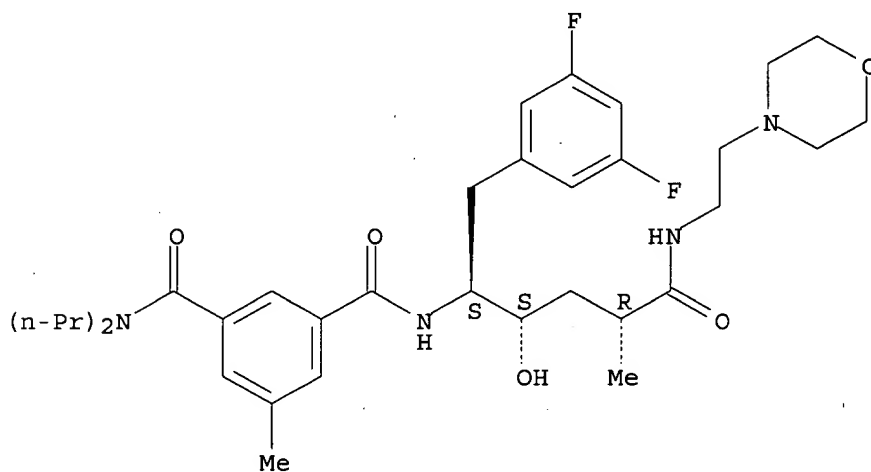
PAGE 1-B

—OMe

RN 362480-29-3 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-[[2-(4-morpholinyl)ethyl]amino]-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

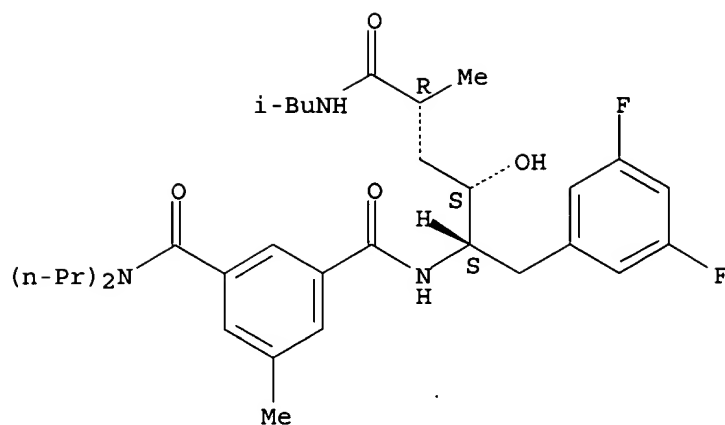
Absolute stereochemistry.



RN 362480-30-6 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-[(2-methylpropyl)amino]-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

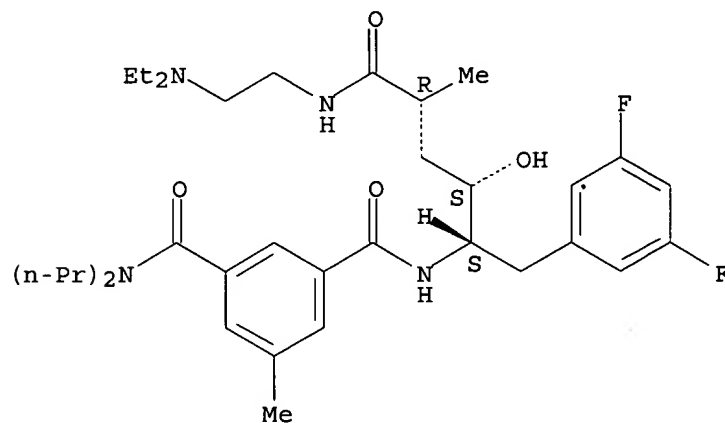
Absolute stereochemistry.



RN 362480-31-7 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-5-[[2-(diethylamino)ethyl]amino]-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

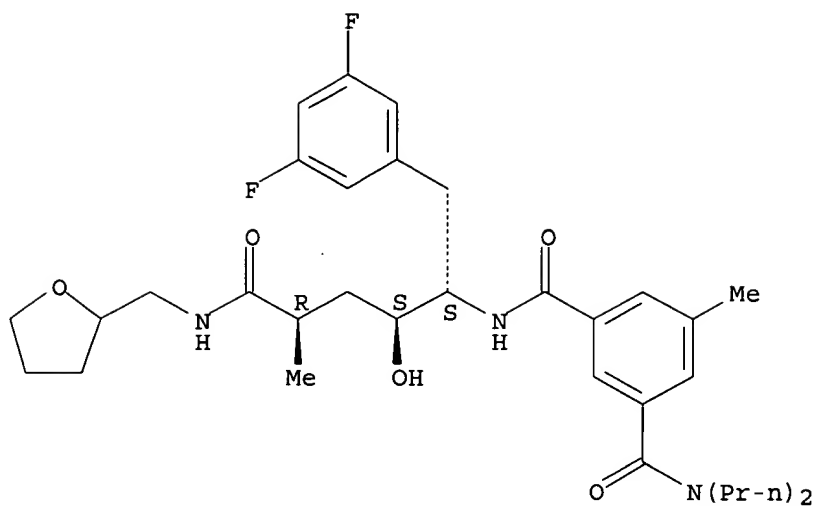
Absolute stereochemistry.



RN 362480-32-8 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-[[tetrahydro-2-furanyl]methyl]amino]pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

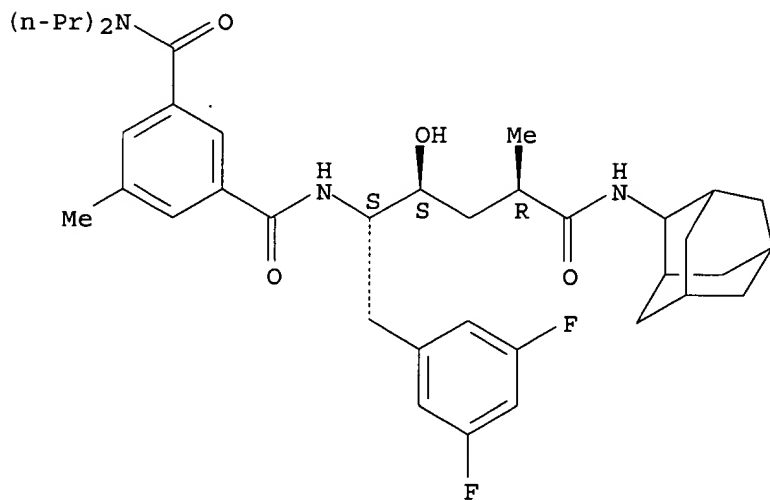
Absolute stereochemistry.



RN 362480-33-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-(tricyclo[3.3.1.1.3,7]dec-2-ylamino)pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

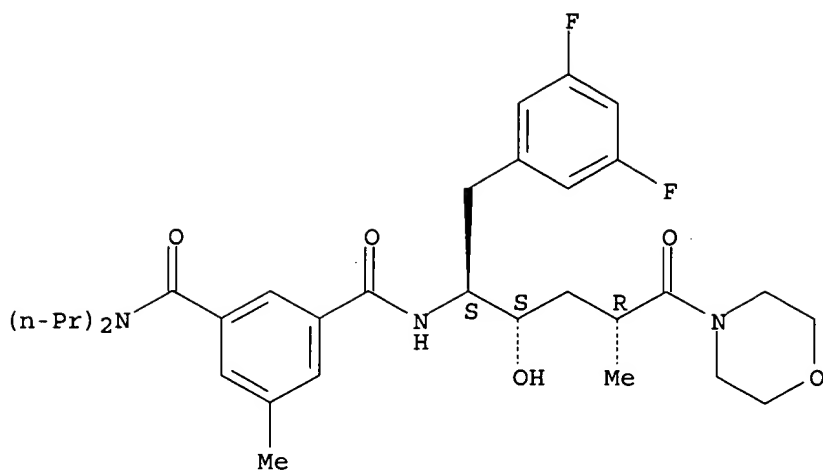
Absolute stereochemistry.



RN 362480-34-0 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-(4-morpholinyl)-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

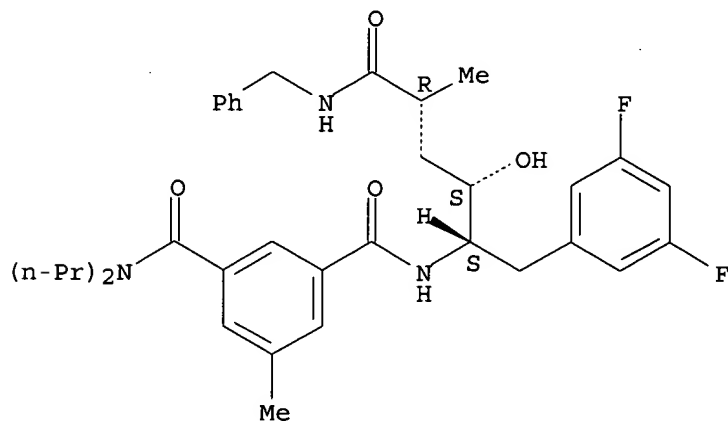
Absolute stereochemistry.



RN 362480-35-1 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-[(phenylmethyl)amino]pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

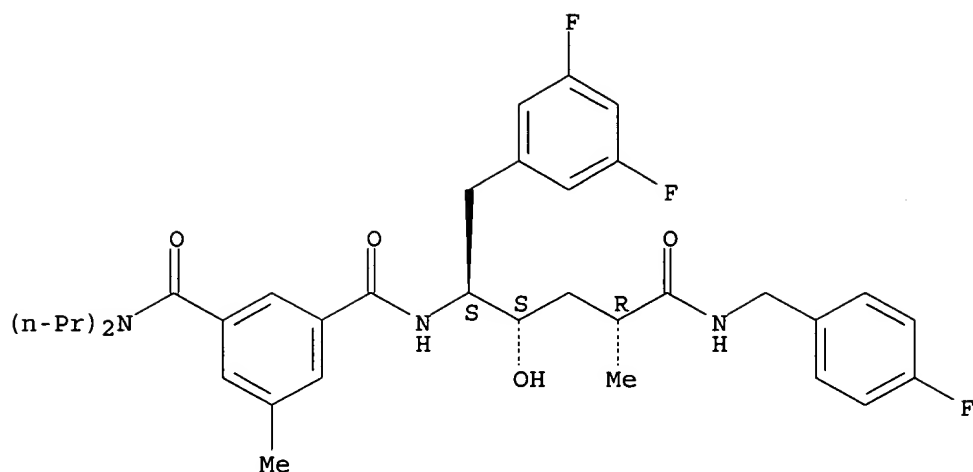
Absolute stereochemistry.



RN 362480-36-2 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-5-[[4-fluorophenyl)methyl]amino]-2-hydroxy-4-methyl-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

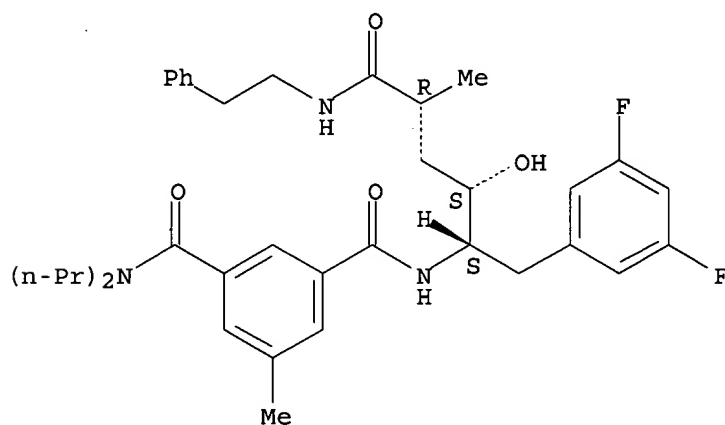
Absolute stereochemistry.



RN 362480-37-3 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-[(2-phenylethyl)amino]pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

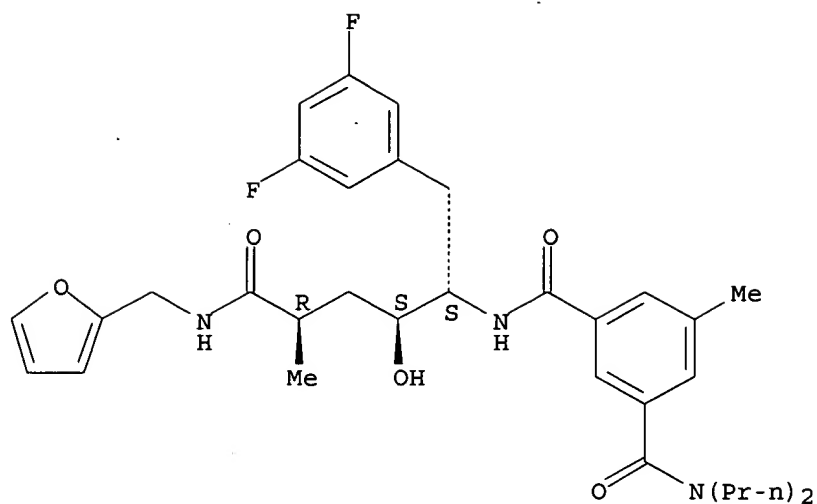
Absolute stereochemistry.



RN 362480-38-4 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-5-[(2-furanylmethyl)amino]-2-hydroxy-4-methyl-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

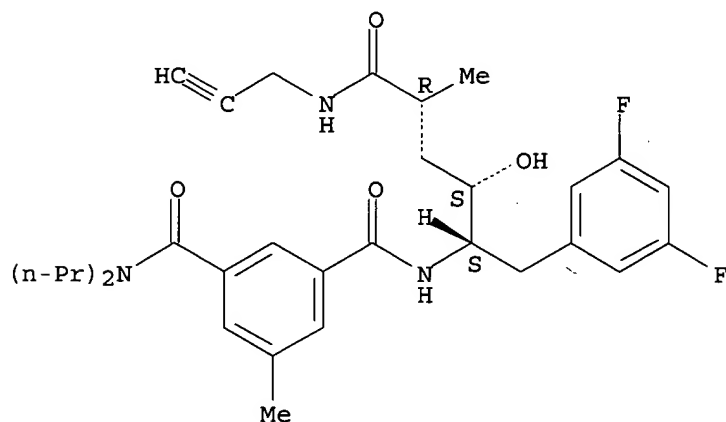
Absolute stereochemistry.



RN 362480-39-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-(2-propynylamino)pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 362479-94-5P 362479-95-6P 362479-97-8P

362479-98-9P 362479-99-0P 362480-00-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

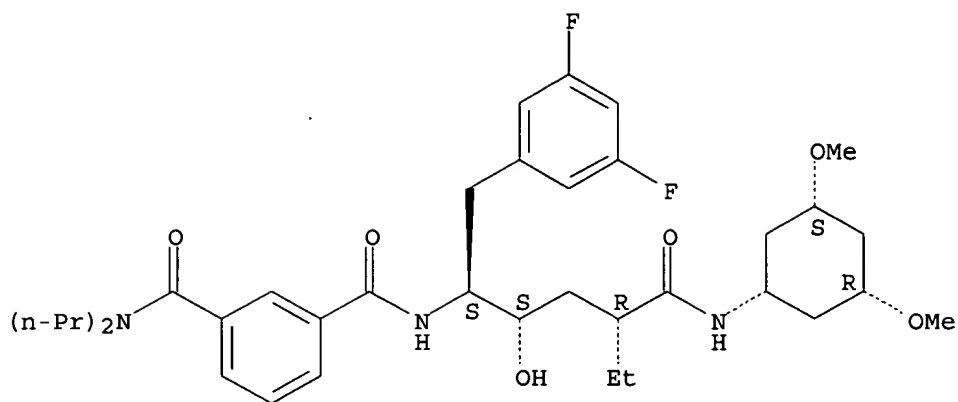
(preparation of amino(hydroxy)pentanoic acid derivs. for treating Alzheimer's disease)

RN 362479-94-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[(1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-3,5-dimethoxycyclohexyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

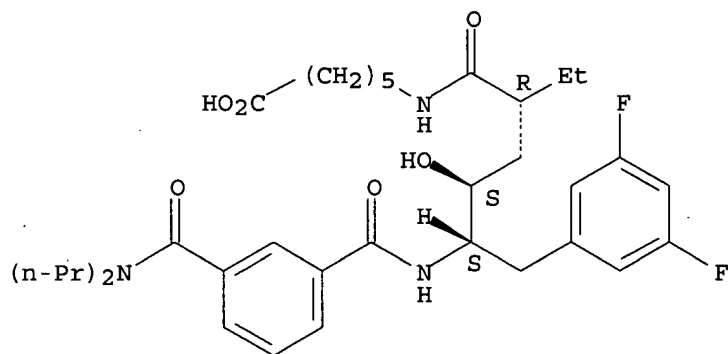




RN 362479-95-6 HCAPLUS

CN Hexanoic acid, 6-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

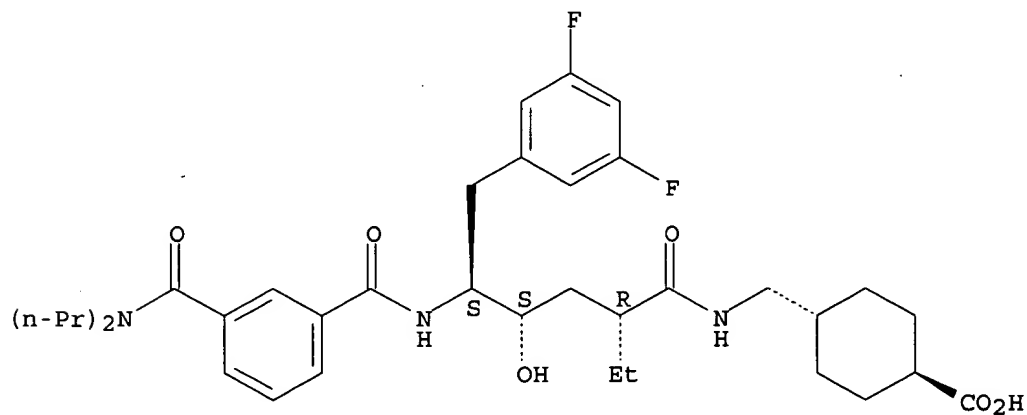
Absolute stereochemistry.



RN 362479-97-8 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

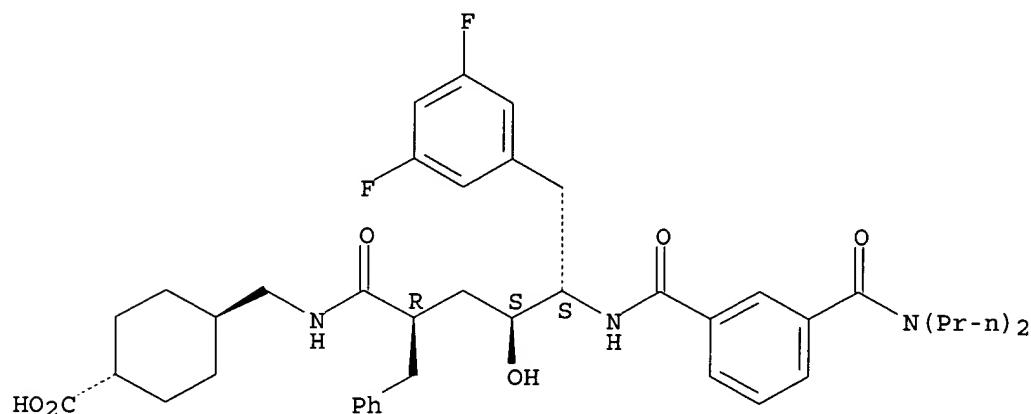
Absolute stereochemistry.



RN 362479-98-9 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxo-2-(phenylmethyl)hexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

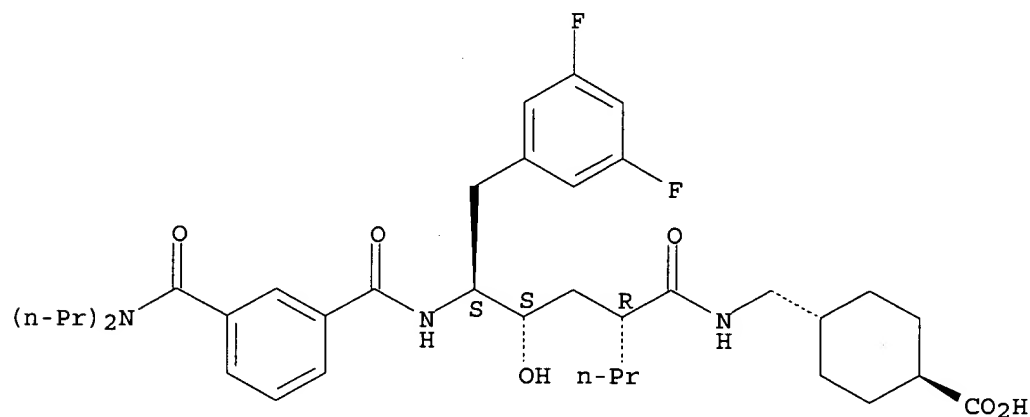
Absolute stereochemistry.



RN 362479-99-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxo-2-propylhexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

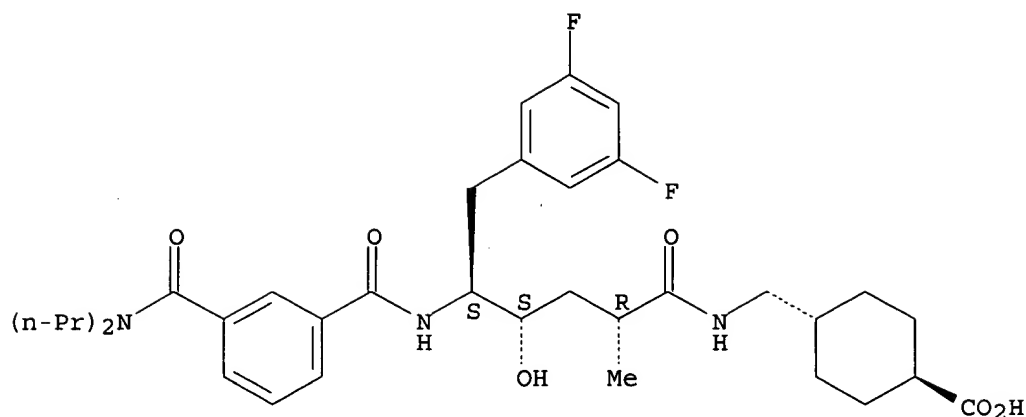
Absolute stereochemistry.



RN 362480-00-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-2-methyl-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L26 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2001:713293 HCAPLUS  
 DN 135:273220  
 ED Entered STN: 28 Sep 2001  
 TI Preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease  
 IN Hom, Roy; Mamo, Shumeye; Tung, Jay;  
 Gailunas, Andrea; John, Varghese; Fang, Larry  
 PA Elan Pharmaceuticals, Inc., USA  
 SO PCT Int. Appl., 240 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C07C235-00  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 1, 63

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001070672	A2	20010927	WO 2001-US9501	<del>20010323</del> <--
	WO 2001070672	A3	20020321		
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
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	EP 1265849	A2	20021218	EP 2001-926424	20010323 <--
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2003528071	T2	20030924	JP 2001-568884	20010323 <--
PRAI	US 2000-191528P	P	20000323	<--	
	WO 2001-US9501	W	20010323		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001070672	ICM	C07C235-00

OS MARPAT 135:273220

AB Hydroxyethylenes, such as RNHCHR1CH(OH)CH2CHR2COBR3 [R = peptidyl group, acyl, etc.; R1 = alkyl, alkenyl, arylalkyl, etc.; R2 = H, alkyl,

cycloalkyl, arylalkyl, etc.; BR3 = peptidyl group; B = O, NR4; R3 = alkyl, arylalkyl, etc.; R4 = H, alkyl, etc.], were prepared as agents for the treatment of Alzheimer's disease. Thus, BOC-L-Val-L-Met-NH-(S,S,S)-CH(CH<sub>2</sub>CHMe<sub>2</sub>)CH(OH)CH(CHMe<sub>2</sub>)CO-L-Ala-L-Glu-L-Phe-OH via a series of amide coupling reactions of the corresponding amino acids with the hydroxyethylene moiety. The prepared hydroxyethylenes were tested for  $\beta$ -secretase inhibiting activity.

ST peptide hydroxyethylene prepn Alzheimer disease treatment  
IT Anti-Alzheimer's agents

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

IT 362480-10-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

IT 362479-88-7P 362479-89-8P 362479-90-1P 362479-91-2P 362479-92-3P

362479-93-4P 362479-94-5P 362479-95-6P

362479-96-7P 362479-97-8P 362479-98-9P

362479-99-0P 362480-00-0P 362480-11-3P

362480-12-4P 362480-13-5P 362480-14-6P

362480-15-7P 362480-16-8P 362480-17-9P

362480-18-0P 362480-19-1P 362480-20-4P

362480-21-5P 362480-22-6P 362480-23-7P

362480-24-8P 362480-25-9P 362480-26-0P

362480-27-1P 362480-28-2P 362480-29-3P

362480-30-6P 362480-31-7P 362480-32-8P

362480-33-9P 362480-34-0P 362480-35-1P

362480-36-2P 362480-37-3P 362480-38-4P

362480-39-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

IT 158736-49-3,  $\beta$ -Secretase

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

IT 60-32-2 79-03-8, Propanoyl chloride 96-81-1 141-75-3, Butanoyl chloride 638-29-9, Pentanoyl chloride 645-45-4, Benzenepropanoyl chloride 1002-57-9 1197-18-8 2488-15-5 6341-54-4 13734-34-4

15761-38-3 18469-52-8 74733-38-3 126926-35-0 205445-52-9

337531-15-4 362480-40-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

IT 362480-01-1P 362480-02-2P 362480-03-3P 362480-04-4P 362480-05-5P

362480-06-6P 362480-07-7P 362480-08-8P 362480-09-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

IT 150234-52-9 186142-26-7 288584-07-6 288584-08-7

RL: PRP (Properties)

(unclaimed sequence; preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

IT 362479-94-5P 362479-95-6P 362479-96-7P

362479-97-8P 362479-98-9P 362479-99-0P

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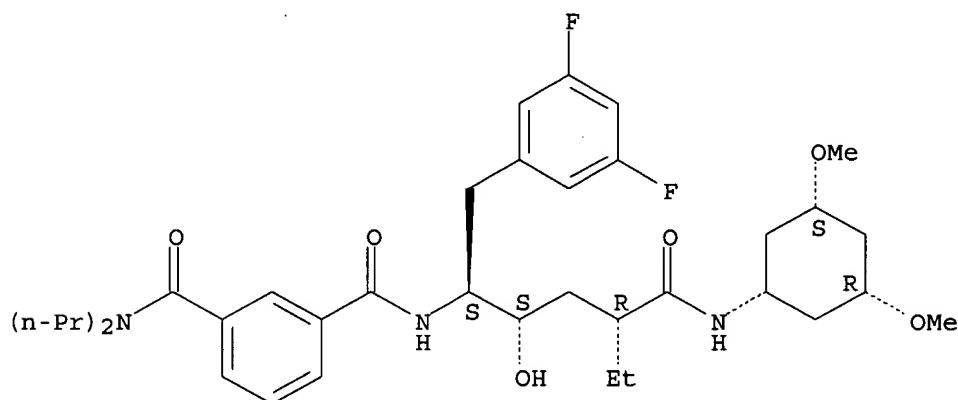
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 362480-37-3P 362480-38-4P 362480-39-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

RN 362479-94-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[(1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-3,5-dimethoxycyclohexyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

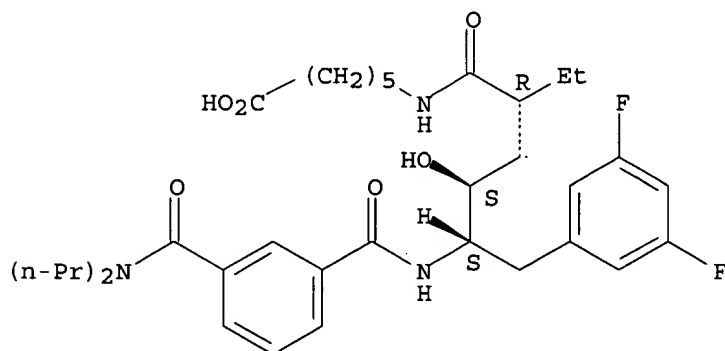
Absolute stereochemistry.



RN 362479-95-6 HCAPLUS

CN Hexanoic acid, 6-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

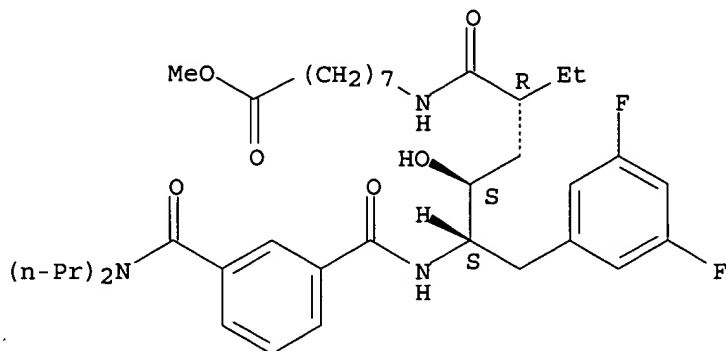
Absolute stereochemistry.



RN 362479-96-7 HCAPLUS

CN Octanoic acid, 8-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

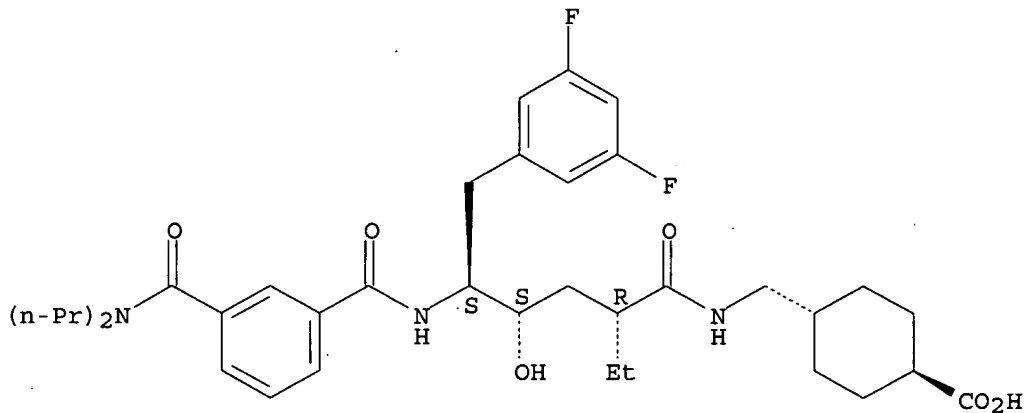
Absolute stereochemistry.



RN 362479-97-8 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

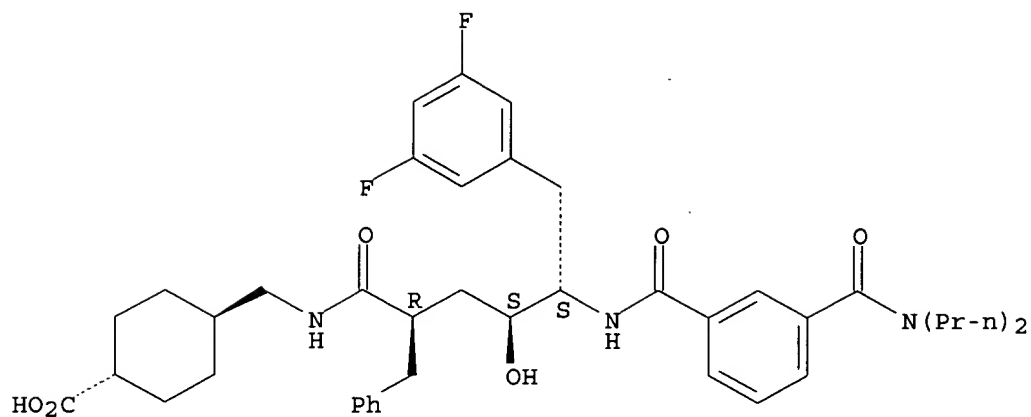
Absolute stereochemistry.



RN 362479-98-9 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxo-2-(phenylmethyl)hexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

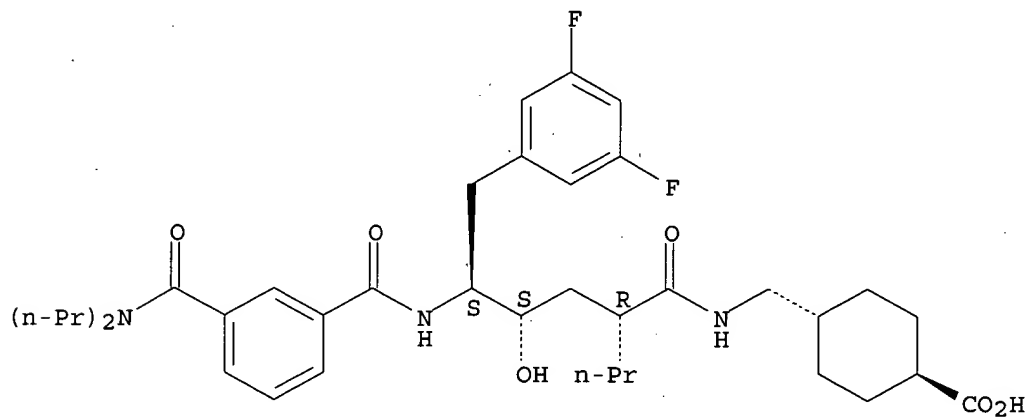
Absolute stereochemistry.



RN 362479-99-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxo-2-propylhexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

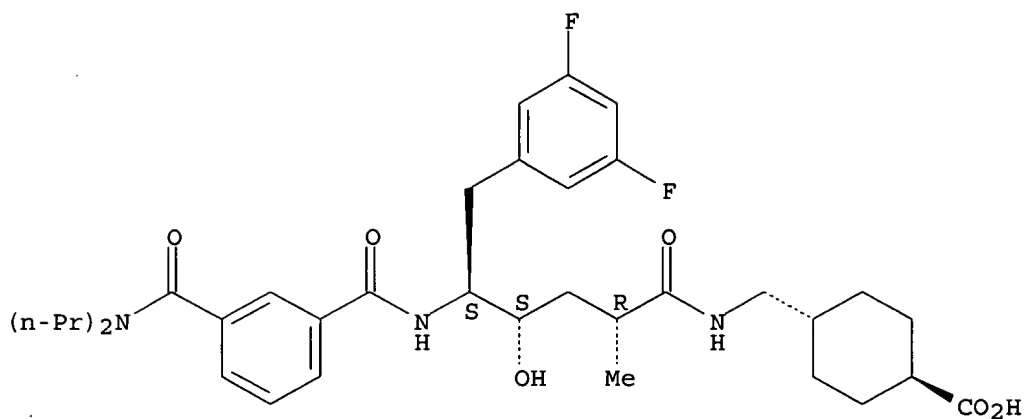
Absolute stereochemistry.



RN 362480-00-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-2-methyl-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

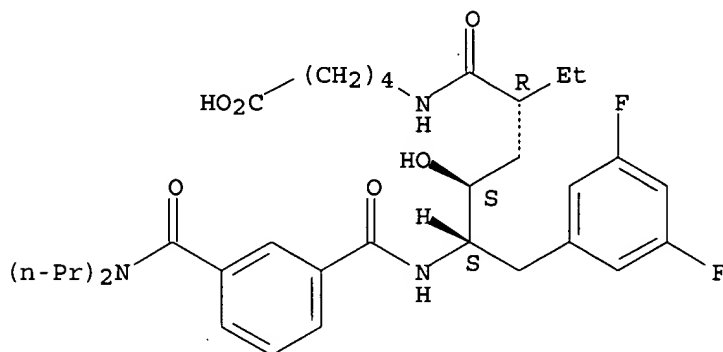
Absolute stereochemistry.



RN 362480-11-3 HCAPLUS

CN Pentanoic acid, 5-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

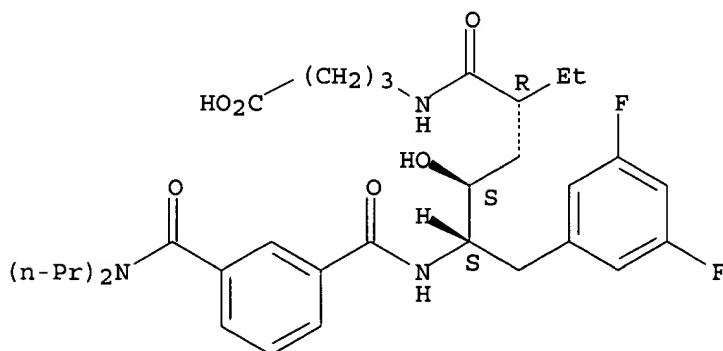
Absolute stereochemistry.



RN 362480-12-4 HCAPLUS

CN Butanoic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

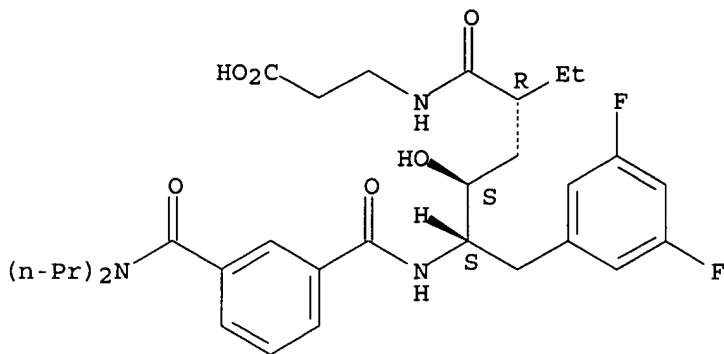


RN 362480-13-5 HCAPLUS



CN  $\beta$ -Alanine, N-[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-  
[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]-  
(9CI) (CA INDEX NAME)

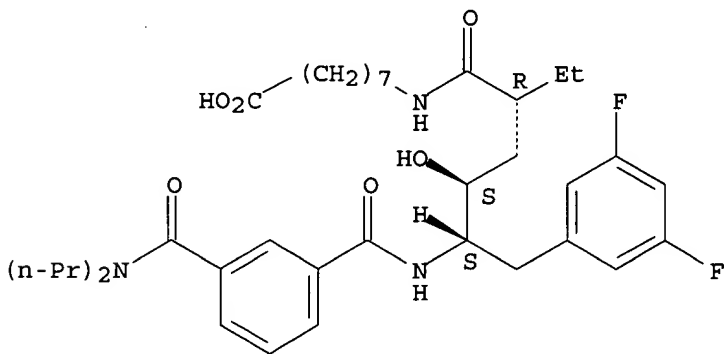
Absolute stereochemistry.



RN 362480-14-6 HCAPLUS

CN Octanoic acid, 8-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-  
[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-  
oxohexyl]amino]- (9CI) (CA INDEX NAME)

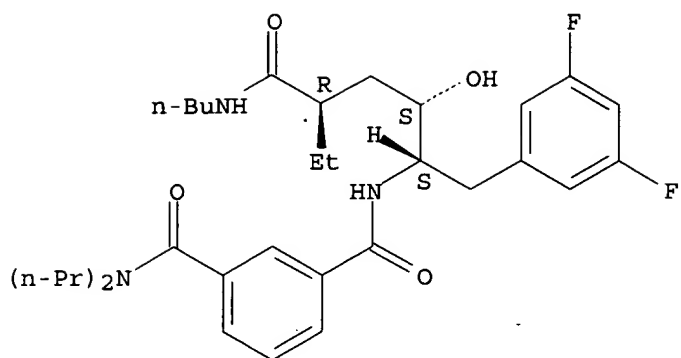
Absolute stereochemistry.



RN 362480-15-7 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-4-[(butylamino)carbonyl]-1-[(3,5-  
difluorophenyl)methyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX  
NAME)

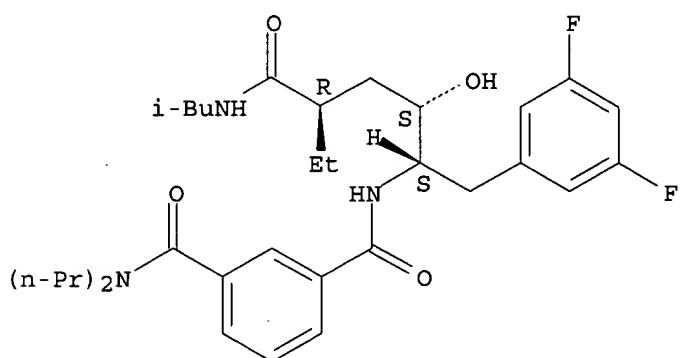
Absolute stereochemistry.



RN 362480-16-8 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[(2-methylpropyl)amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

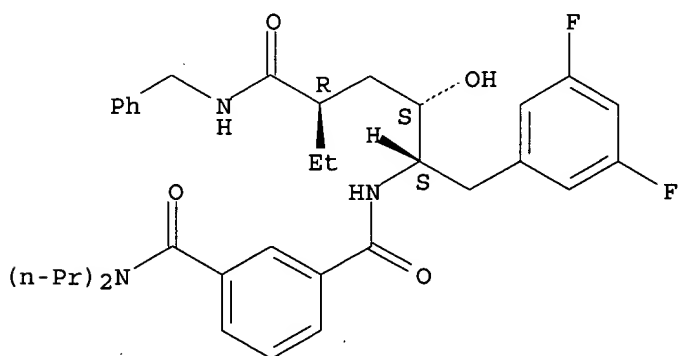
Absolute stereochemistry.



RN 362480-17-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[(phenylmethyl)amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

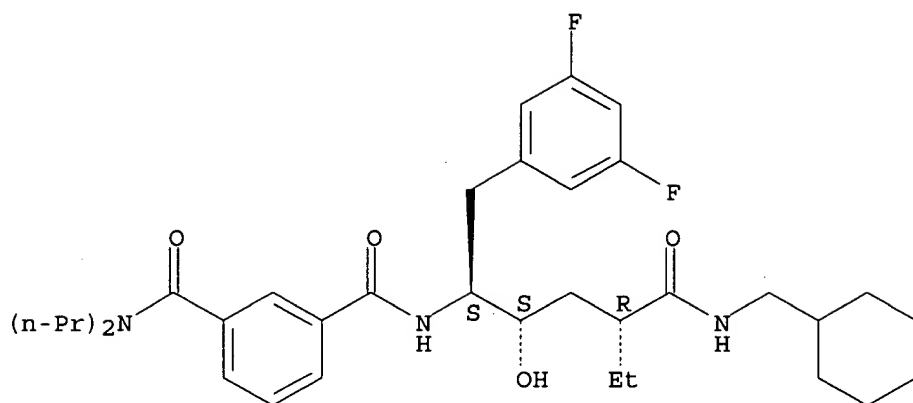


RN 362480-18-0 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-4-[[[(cyclohexylmethyl)amino]carbonyl]-1-[(3,5-difluorophenyl)methyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI)

(CA INDEX NAME)

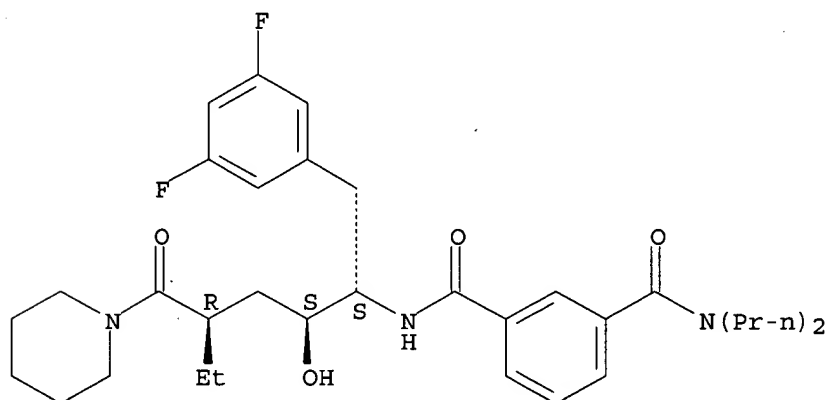
Absolute stereochemistry.



RN 362480-19-1 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-(1-piperidinylcarbonyl)hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

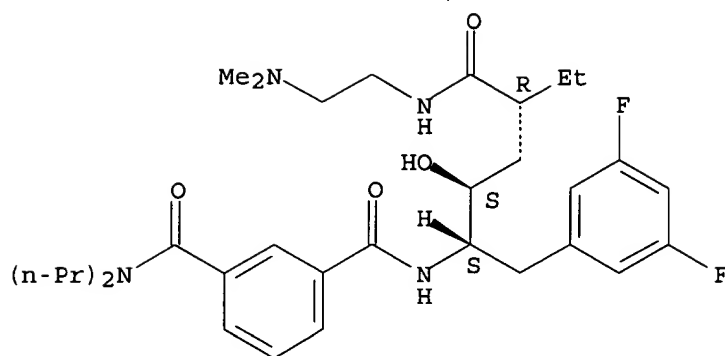
Absolute stereochemistry.



RN 362480-20-4 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[2-(dimethylamino)ethyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

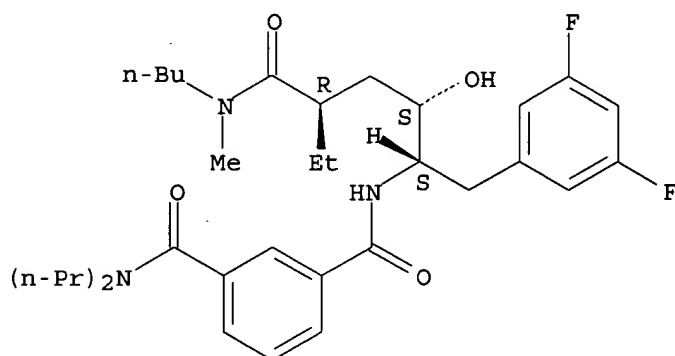
Absolute stereochemistry.



RN 362480-21-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-4-[(butylmethylamino)carbonyl]-1-[(3,5-difluorophenyl)methyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

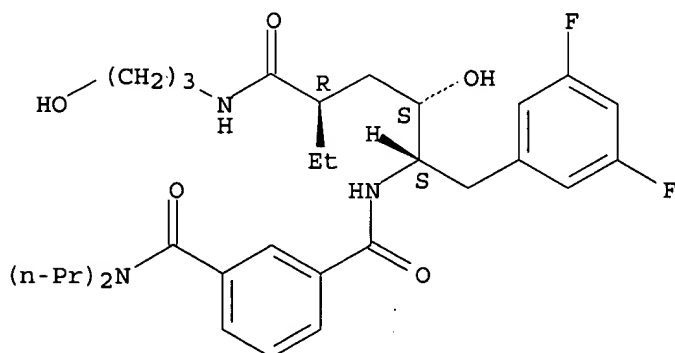
Absolute stereochemistry.



RN 362480-22-6 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-[[3-(3-hydroxypropyl)amino]carbonyl]hexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



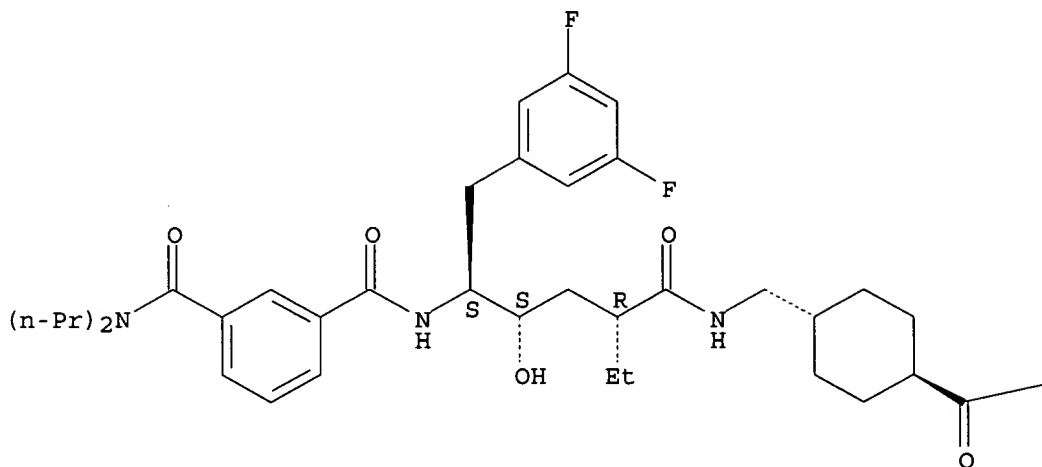
RN 362480-23-7 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[3-(3-hydroxypropyl)amino]carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-[(3,5-difluorophenyl)methyl]- (9CI)

oxohexyl]amino]methyl]-, methyl ester, trans- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



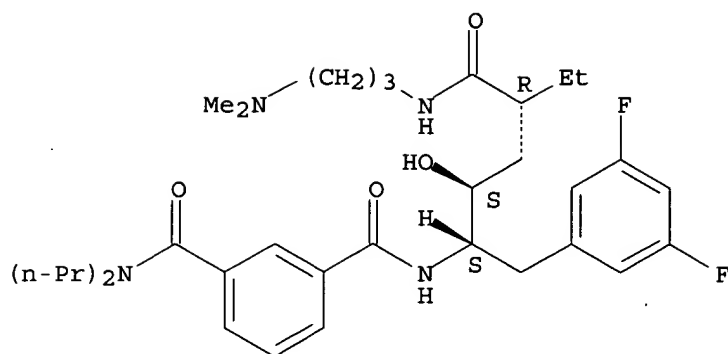
PAGE 1-B

—OMe

RN 362480-24-8 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[3-(dimethylamino)propyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

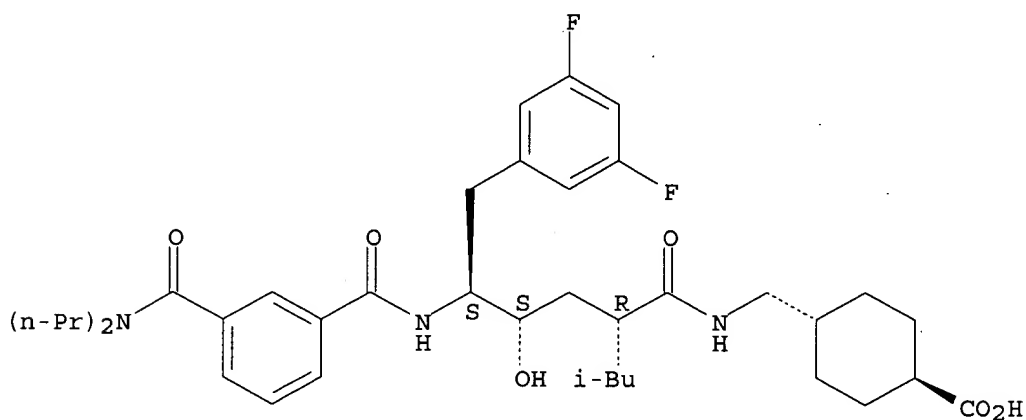
Absolute stereochemistry.



RN 362480-25-9 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-2-(2-methylpropyl)-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

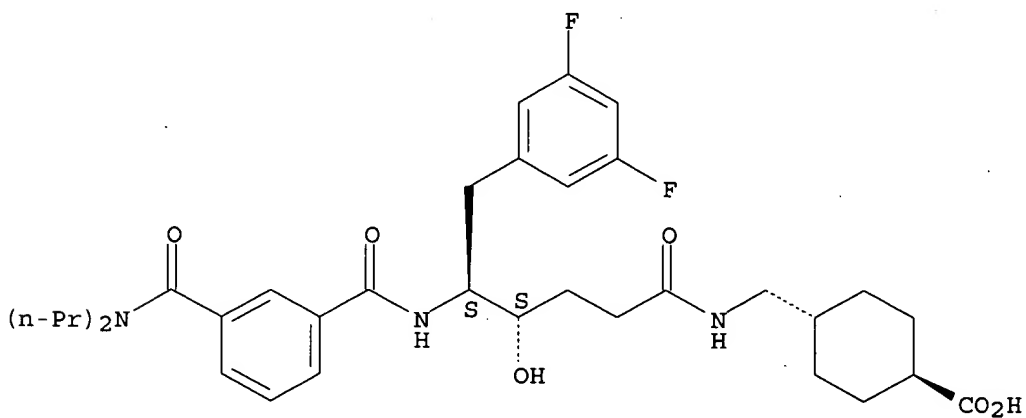
Absolute stereochemistry.



RN 362480-26-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]benzoyl]amino]-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

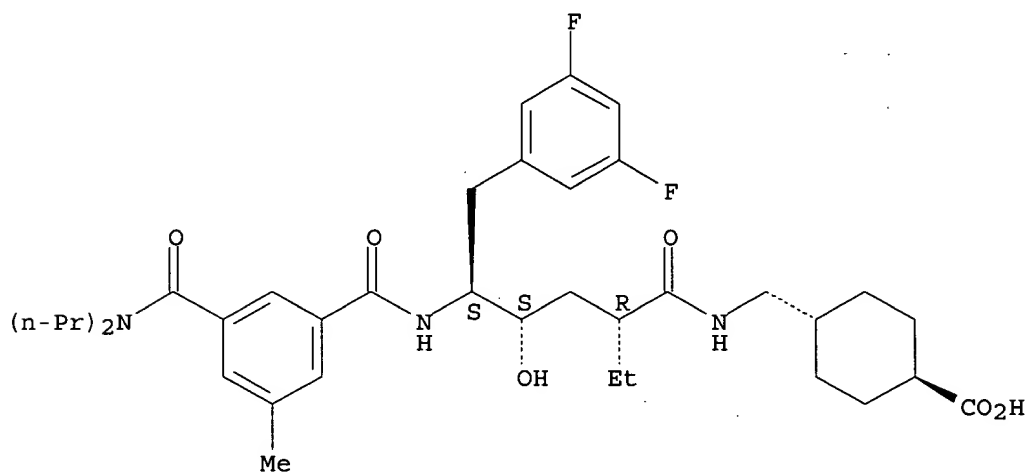
Absolute stereochemistry.



RN 362480-27-1 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]-5-methylbenzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]methyl]-, trans- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

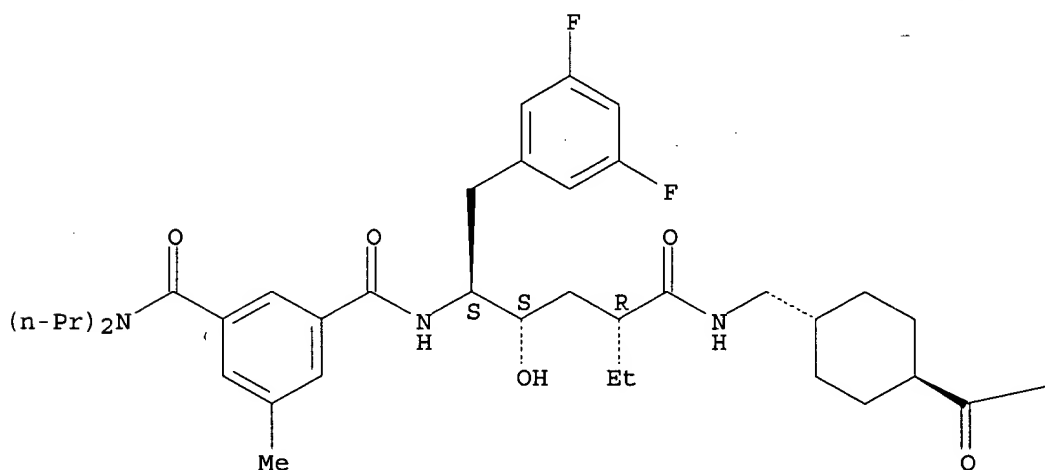


RN 362480-28-2 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[3-[(dipropylamino)carbonyl]-5-methylbenzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]methyl]-, methyl ester, trans- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



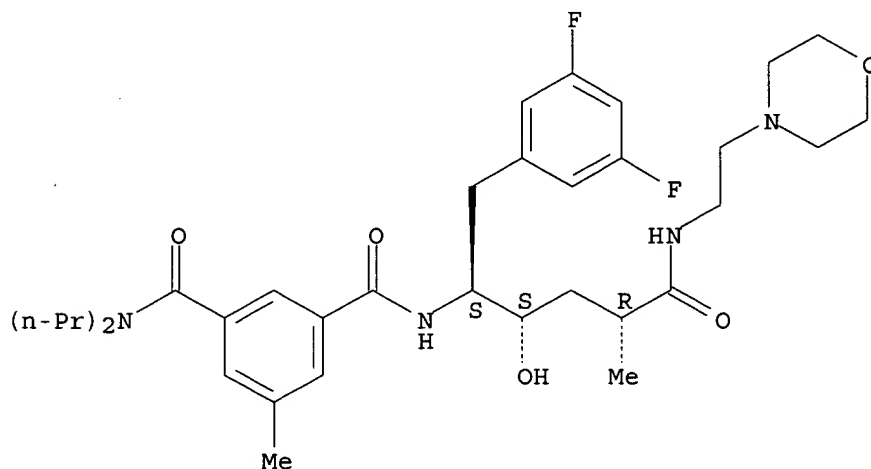
PAGE 1-B

—OMe

RN 362480-29-3 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-[[2-(4-morpholinyl)ethyl]amino]-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

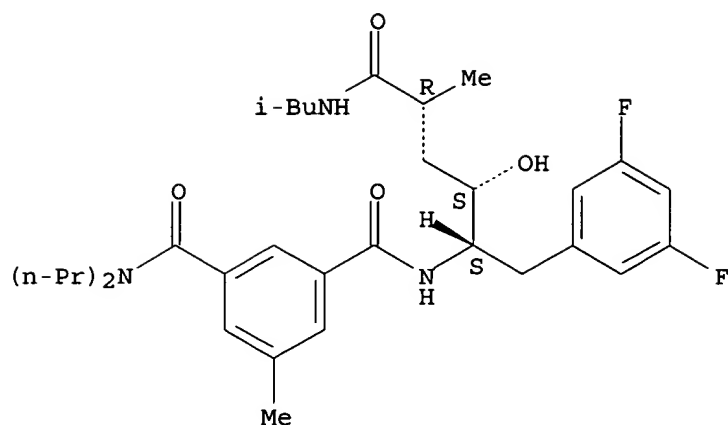


RN 362480-30-6 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-[(2-methylpropyl)amino]-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

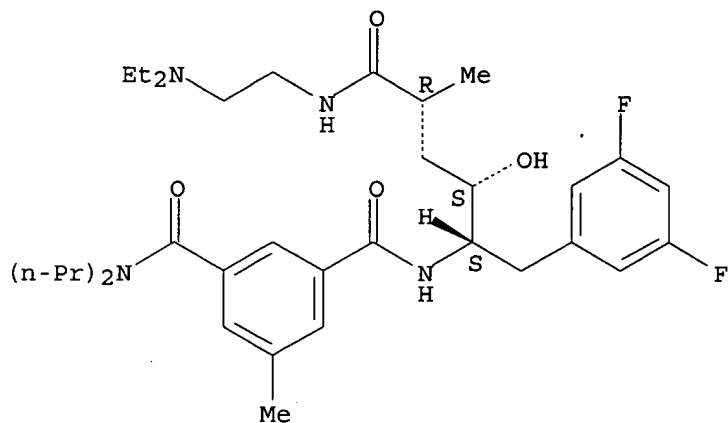




RN 362480-31-7 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-5-[[2-(diethylamino)ethyl]amino]-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

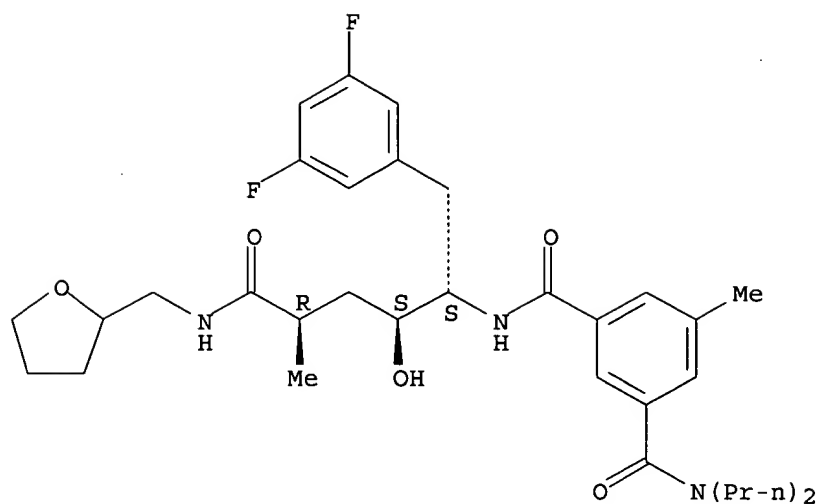
Absolute stereochemistry.



RN 362480-32-8 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-[[[tetrahydro-2-furanyl)methyl]amino]pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

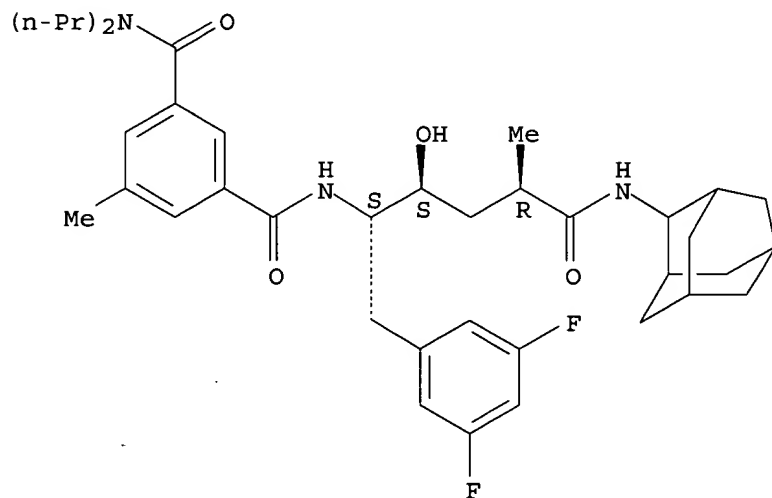
Absolute stereochemistry.



RN 362480-33-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-(tricyclo[3.3.1.1.3,7]dec-2-ylamino)pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

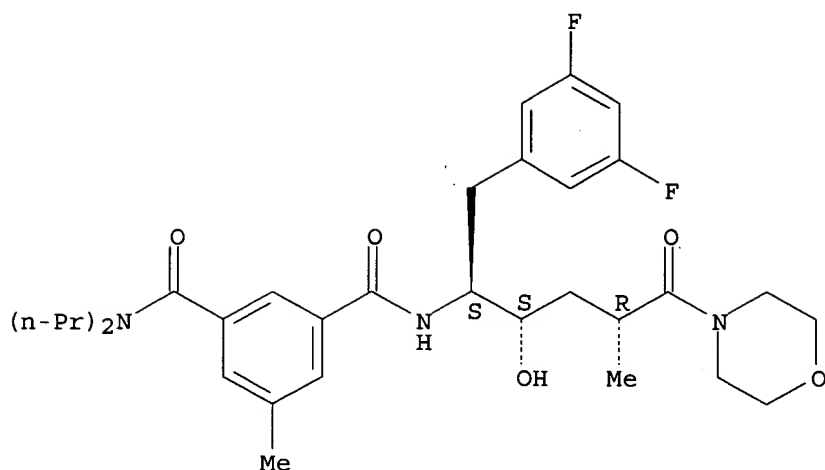
Absolute stereochemistry.



RN 362480-34-0 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-(4-morpholinyl)-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

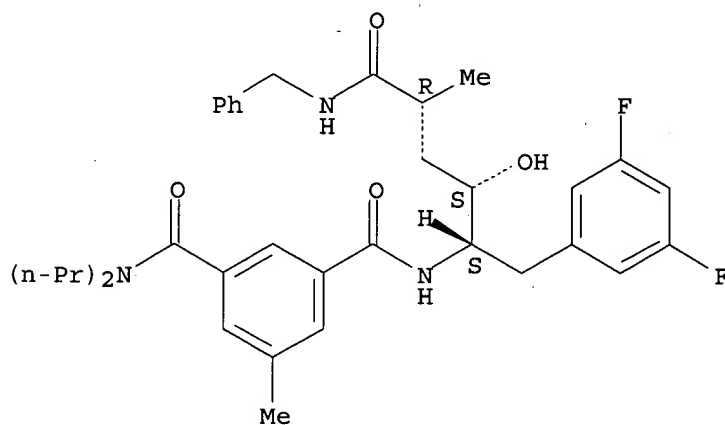
Absolute stereochemistry.



RN 362480-35-1 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-[(phenylmethyl)amino]pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

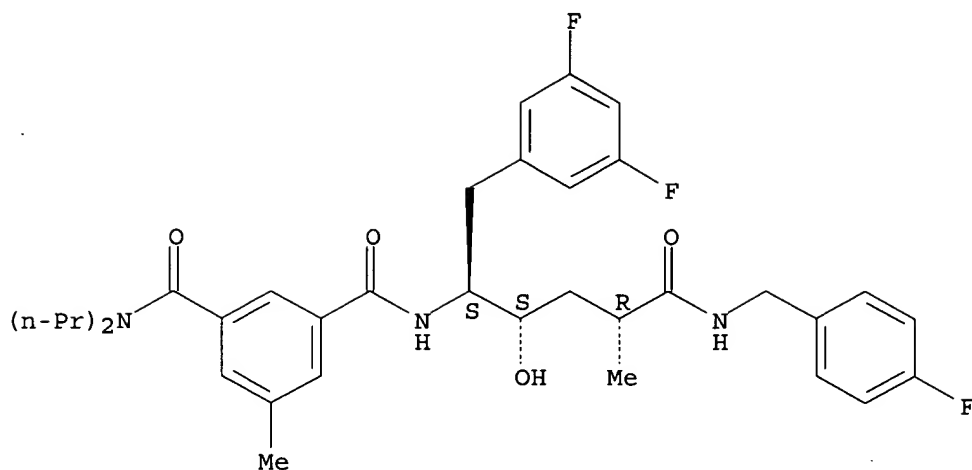
Absolute stereochemistry.



RN 362480-36-2 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-5-[[4-fluorophenyl)methyl]amino]-2-hydroxy-4-methyl-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

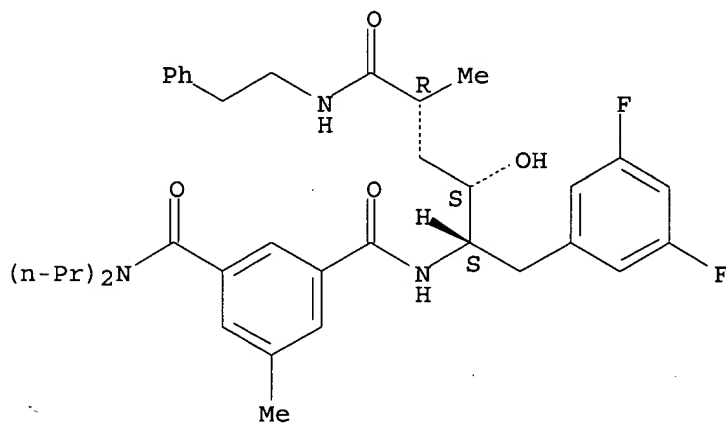
Absolute stereochemistry.



RN 362480-37-3 HCAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-[(2-phenylethyl)amino]pentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

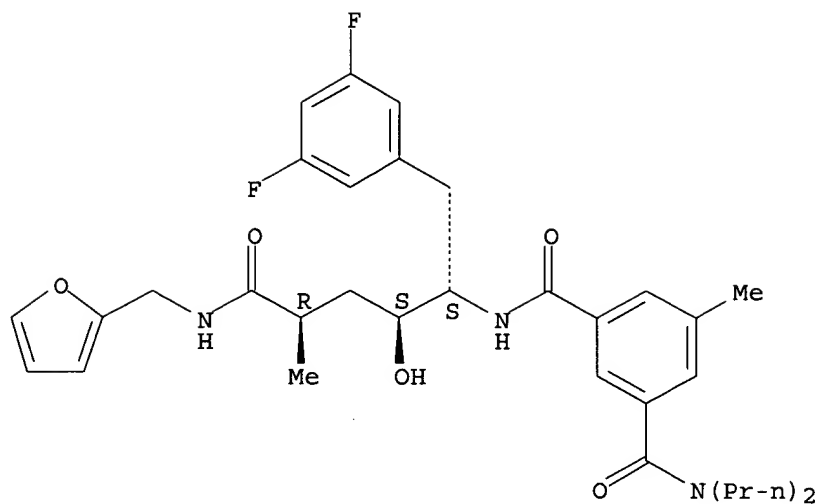
Absolute stereochemistry.



RN 362480-38-4 HCAPLUS

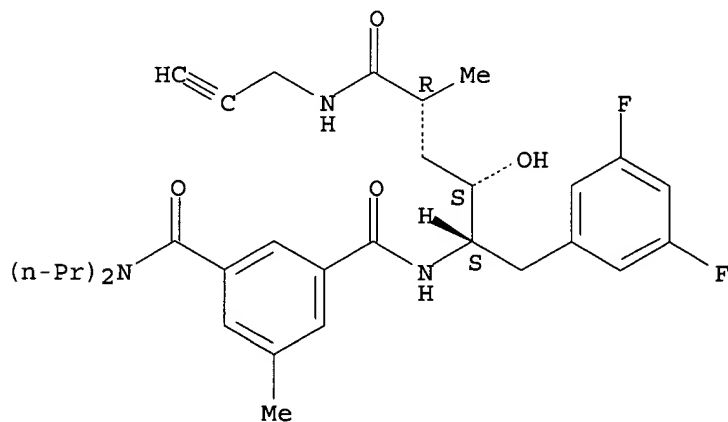
CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-5-[(2-furanylmethyl)amino]-2-hydroxy-4-methyl-5-oxopentyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 362480-39-5 HCAPLUS  
 CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-4-methyl-5-oxo-5-(2-propynylamino)pentyl]-5-methyl-N,N-dipropyl-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> fil uspatful

FILE 'USPATFULL' ENTERED AT 08:48:42 ON 16 FEB 2005

CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 15 Feb 2005 (20050215/PD)

FILE LAST UPDATED: 15 Feb 2005 (20050215/ED)

HIGHEST GRANTED PATENT NUMBER: US6857132

HIGHEST APPLICATION PUBLICATION NUMBER: US2005034203

CA INDEXING IS CURRENT THROUGH 15 Feb 2005 (20050215/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 15 Feb 2005 (20050215/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2004

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2004

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 >>> applications. USPAT2 contains full text of the latest US <<<

>>> publications, starting in 2001, for the inventions covered in <<<  
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>>> published document but also a list of any subsequent <<<  
>>> publications. The publication number, patent kind code, and <<<  
>>> publication date for all the US publications for an invention <<<  
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<  
>>> records and may be searched in standard search fields, e.g., /PN, <<<  
>>> /PK, etc. <<<

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>>> enter this cluster. <<<  
>>> <<<  
>>> Use USPATALL when searching terms such as patent assignees, <<<  
>>> classifications, or claims, that may potentially change from <<<  
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> d l28 bib abs hitrn fhitr tot

L28 ANSWER 1 OF 4 USPATFULL on STN  
AN 2004:274344 USPATFULL  
TI Compounds to treat Alzheimer's disease  
IN Hom, Roy, San Francisco, CA, UNITED STATES  
Mamo, Shumeye S., Oakland, CA, UNITED STATES  
Tung, Jay, Belmont, CA, UNITED STATES  
Gailunas, Andrea, San Francisco, CA, UNITED STATES  
John, Varghese, San Francisco, CA, UNITED STATES  
Fang, Lawrence Y., Foster City, CA, UNITED STATES  
PA Elan Pharmaceuticals, Inc. (U.S. corporation)  
PI US 2004214846 A1 20041028  
AI US 2004-847819 A1 20040518 (10)  
RLI Continuation of Ser. No. US 2001-815960, filed on 23 Mar 2001, GRANTED,  
Pat. No. US 6737420  
PRAI US 2000-191528P 20000323 (60) *invention*  
DT Utility  
FS APPLICATION  
LREP MCDONNELL BOEHNNEN HULBERT & BERGHOFF LLP, 300 S. WACKER DRIVE, 32ND  
FLOOR, CHICAGO, IL, 60606  
CLMN Number of Claims: 141  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 7288  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB The present invention is directed toward substituted hydroxyethylene  
compounds of formula (XII) ##STR1##

useful in treating Alzheimer's disease and other similar diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 362479-94-5P 362479-95-6P 362479-96-7P  
362479-97-8P 362479-98-9P 362479-99-0P  
362480-00-0P 362480-11-3P 362480-12-4P  
362480-13-5P 362480-14-6P 362480-15-7P  
362480-16-8P 362480-17-9P 362480-18-0P  
362480-19-1P 362480-20-4P 362480-21-5P  
362480-22-6P 362480-23-7P 362480-24-8P  
362480-25-9P 362480-26-0P 362480-27-1P  
362480-28-2P 362480-29-3P 362480-30-6P  
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**362480-37-3P 362480-38-4P 362480-39-5P**

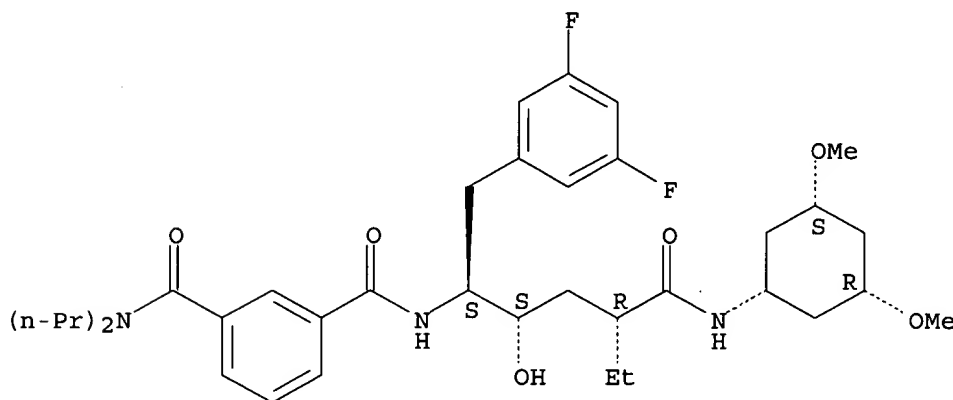
(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

**IT 362479-94-5P**

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

**RN 362479-94-5 USPTAFULL****CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[(1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-3,5-dimethoxycyclohexyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)**

Absolute stereochemistry.



L28 ANSWER 2 OF 4 USPTAFULL on STN

AN 2003:18124 USPTAFULL

TI Compounds to treat Alzheimer's disease

IN Hom, Roy, San Francisco, CA, UNITED STATES

Mamo, Shumeye, Oakland, CA, UNITED STATES

Tung, Jay, Belmont, CA, UNITED STATES

Gailunas, Andrea, Burlingame, CA, UNITED STATES

John, Varghese, San Francisco, CA, UNITED STATES

Fang, Lawrence, Foster City, CA, UNITED STATES

PI US 2003013881 A1 20030116

AI US 2001-960634 A1 20010921 (9)

RLI Continuation-in-part of Ser. No. US 2001-815960, filed on 23 Mar 2001,  
PENDING Continuation-in-part of Ser. No. US 2001-816876, filed on 23 Mar  
2001, PENDING

PRAI US 2000-191528P 20000323 (60)

DT Utility

FS APPLICATION

LREP MERCHANT &amp; GOULD PC, P.O. BOX 2903, MINNEAPOLIS, MN, 55402-0903

CLMN Number of Claims: 187

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 6363

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed toward substituted hydroxyethylene  
compounds of formulas (XII) (XIII), and (XIV) ##STR1##

useful in treating Alzheimer's disease and other similar diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

**IT 362479-96-7P**(preparation of amino(hydroxy)pentanoic acid derivs. for treating  
Alzheimer's disease)**IT 362480-11-3P 362480-12-4P 362480-13-5P**

362480-14-6P 362480-15-7P 362480-16-8P  
 362480-17-9P 362480-18-0P 362480-19-1P  
 362480-20-4P 362480-21-5P 362480-22-6P  
 362480-23-7P 362480-24-8P 362480-25-9P  
 362480-26-0P 362480-27-1P 362480-28-2P  
 362480-29-3P 362480-30-6P 362480-31-7P  
 362480-32-8P 362480-33-9P 362480-34-0P  
 362480-35-1P 362480-36-2P 362480-37-3P  
 362480-38-4P 362480-39-5P

(preparation of amino(hydroxy)pentanoic acid derivs. for treating Alzheimer's disease)

IT 362479-94-5P 362479-95-6P 362479-97-8P  
 362479-98-9P 362479-99-0P 362480-00-0P

(preparation of amino(hydroxy)pentanoic acid derivs. for treating Alzheimer's disease)

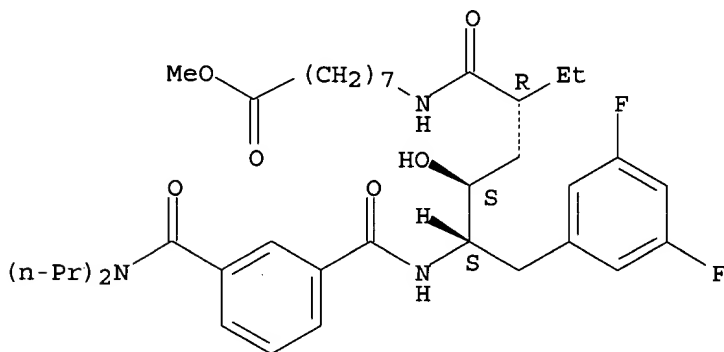
IT 362479-96-7P

(preparation of amino(hydroxy)pentanoic acid derivs. for treating Alzheimer's disease)

RN 362479-96-7 USPTAFULL

CN Octanoic acid, 8-[[[(2R,4S,5S)-6-(3,5-difluorophenyl)-5-[[[3-[(dipropylamino)carbonyl]benzoyl]amino]-2-ethyl-4-hydroxy-1-oxohexyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L28 ANSWER 3 OF 4 USPTAFULL on STN

AN 2002:37903 USPTAFULL

TI Compounds to treat alzheimer's disease

IN Hom, Roy, San Francisco, CA, UNITED STATES

Mamo, Shumeye, Oakland, CA, UNITED STATES

Tung, Jay, Belmont, CA, UNITED STATES

Gailunas, Andrea, San Francisco, CA, UNITED STATES

John, Varghese, San Francisco, CA, UNITED STATES

Fang, Lawrence Y., Foster City, CA, UNITED STATES

PI US 2002022623

A1 20020221

US 6737420

B2 20040518

AI US 2001-815960

A1 20010323 (9)

PRAI US 2000-191528P

20000323 (50)

DT Utility

FS APPLICATION

LREP MERCHANT & GOULD P.C., P.O. Box 2903, Minneapolis, MN, 55402-0903

CLMN Number of Claims: 141

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 7182

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed toward substituted hydroxyethylene

*Twenty*



compounds of formula (XII) ##STR1##

useful in treating Alzheimer's disease and other similar diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 362479-94-5P 362479-95-6P 362479-96-7P  
 362479-97-8P 362479-98-9P 362479-99-0P  
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 362480-25-9P 362480-26-0P 362480-27-1P  
 362480-28-2P 362480-29-3P 362480-30-6P  
 362480-31-7P 362480-32-8P 362480-33-9P  
 362480-34-0P 362480-35-1P 362480-36-2P  
 362480-37-3P 362480-38-4P 362480-39-5P

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

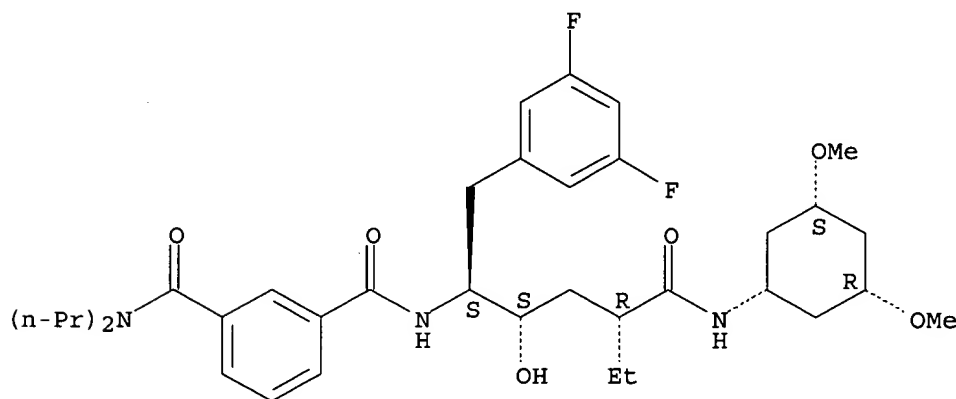
IT 362479-94-5P

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

RN 362479-94-5 USPATFULL

CN 1,3-Benzenedicarboxamide, N'-[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[(1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-3,5-dimethoxycyclohexyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L28 ANSWER 4 OF 4 USPATFULL on STN

AN 2002:32581 USPATFULL

TI Methods to treat alzheimer's disease

IN Hom, Roy, San Francisco, CA, UNITED STATES

Mamo, Shumeye S., Oakland, CA, UNITED STATES

Tung, Jay, Belmont, CA, UNITED STATES

Gailunas, Andrea, San Francisco, CA, UNITED STATES

John, Varghese, San Francisco, CA, UNITED STATES

Fang, Lawrence Y., Foster City, CA, UNITED STATES

PI US 2002019403 A1 20020214

AI US 2001-816876 A1 20010323 (9)

PRAI US 2000-191528P 20000323 (60)

DT Utility

FS APPLICATION

LREP MERCHANT & GOULD PC, P.O. BOX 2903, MINNEAPOLIS, MN, 55402-0903

CLMN Number of Claims: 63

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 8655

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed toward substituted hydroxyethylene compounds of formula (XII) ##STR1##

useful in treating Alzheimer's disease and other similar diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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 362480-34-0P 362480-35-1P 362480-36-2P  
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(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

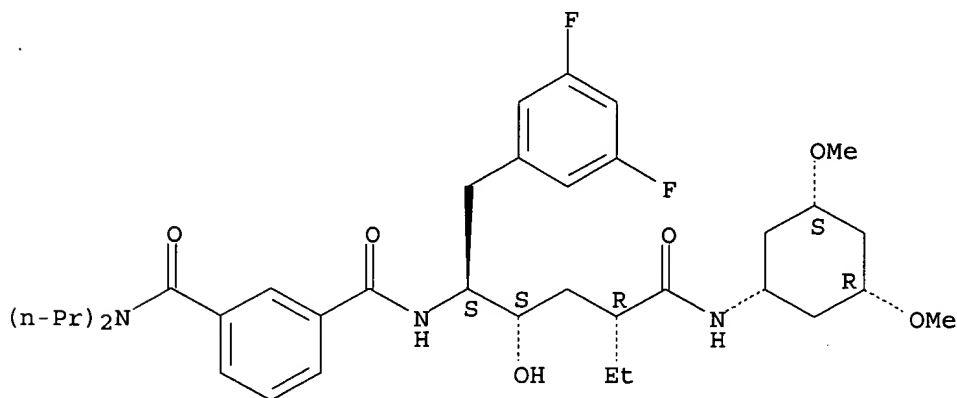
IT 362479-94-5P

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of Alzheimer's disease)

RN 362479-94-5 USPATFULL

CN 1,3-Benzenedicarboxamide, N'--[(1S,2S,4R)-1-[(3,5-difluorophenyl)methyl]-4-[[[(1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-3,5-dimethoxycyclohexyl]amino]carbonyl]-2-hydroxyhexyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> => d his 129-

(FILE 'REGISTRY' ENTERED AT 08:48:01 ON 16 FEB 2005)

FILE 'HCAPLUS' ENTERED AT 08:48:15 ON 16 FEB 2005

FILE 'USPATFULL' ENTERED AT 08:48:42 ON 16 FEB 2005

FILE 'REGISTRY' ENTERED AT 08:49:00 ON 16 FEB 2005

ACT JKIM816A/A

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L29

STR

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L30          STR
L31 (        1871)SEA FILE=REGISTRY SSS FUL L30
L32          679 SEA FILE=REGISTRY SUB=L31 SSS FUL L29
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L33          663 S L32 NOT L18,L24

FILE 'HCAPLUS' ENTERED AT 08:49:53 ON 16 FEB 2005
L34          102 S L33
L35          82 S L34 AND (PD<=20000323 OR PRD<=20000323 OR AD<=20000323)
L36          4 S L35 AND ?ALZHEIM?
          E ALZHEIMER/CT
L37          17365 S E9-E15
          E E9+ALL
L38          17379 S E10,E9+NT
L39          69037 S E27+OLD,NT,PFT,RT OR E28+OLD,NT,PFT,RT OR E29+OLD,NT,PFT,RT O
          E CONGNITION/CT
          E COGNITION/CT
L40          4953 S E3,E4
          E E3+ALL
L41          779 S E4
          E DOWN/CT
L42          2266 S E7
          E E7+ALL
L43          125 S E17
L44          1891 S E15/BI,CT
L45          1911 S DOWN? SYNDROM?
          E HEREDITARY CEREBRAL HEMORRHAGE/CT
          E CEREBRAL HEMORRHAGE/CT
          E E3+ALL
L46          1195 S E2
          E BRAIN DISEASE/CT
          E E4+ALL
          E E2+ALL
L47          226 S E8,E9 (L) (HEREDITARY OR HEMORRH?)
L48          1674 S E47
L49          1489 S E7 (L) (HEREDITARY OR HEMORRH?)
L50          2216 S BRAIN?/CT (L) (HEREDITARY OR HEMORRH?)
L51          6864 S E59
L52          6307 S E7 (L) (INJUR? OR DAMAG?)
L53          866 S E8,E9 (L) (INJUR? OR DAMAG?)
L54          13885 S BRAIN?/CT,CW (L) (INJUR? OR DAMAG?)
          E B-AMYLOID/CT
          E E3+ALL
L55          5735 S E2
          E AMYLOID/CT
L56          7031 S E3-E5
          E E3+ALL
L57          88481 S E7,E6+NT
L58          4 S L35 AND L37-L57
L59          4 S L36,L58
L60          2 S L34 AND ELAN?/PA,CS
L61          3 S L34 AND (HOM R? OR MAMO S? OR TUNG J? OR GAILUNAS A? OR JOHN
L62          5 S L59-L61
          SEL HIT RN

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FILE 'REGISTRY' ENTERED AT 08:59:30 ON 16 FEB 2005

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L63          13 S E1-E13

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=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 09:00:13 ON 16 FEB 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 16 Feb 2005 VOL 142 ISS 8  
FILE LAST UPDATED: 15 Feb 2005 (20050215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 162 all hitstr tot

L62 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:991334 HCAPLUS  
DN 140:41913  
ED Entered STN: 21 Dec 2003  
TI Methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides  
IN **John, Varghese; Maillard, Michel**  
PA **Elan Pharmaceuticals, Inc., USA**  
SO PCT Int. Appl., 363 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM A61K031-165  
ICS A61P027-28  
CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
Section cross-reference(s): 1, 34

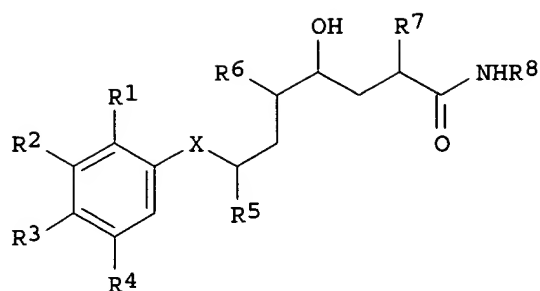
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003103653	A1	20031218	WO 2003-US18517	20030611
	WO 2003103653	C1	20040429		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI US	2002-387880P	P	20020611		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003103653	ICM	A61K031-165
	ICS	A61P027-28

OS MARPAT 140:41913  
GI



- AB Disclosed are methods for treating Alzheimer's disease (no data), and other diseases (no data), and/or inhibiting beta-secretase enzyme (no data), and/or inhibiting deposition of A beta peptide in a mammal (no data), using  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides (shown as I; variables defined below; e.g. 2(R,S)-methyl-4(S)-hydroxy-5(S)-amino-7(S)-isopropyl-8-(p-tert-butylphenyl)octanoic acid N-butylamide hydrochloride). For I: R1 = H, OH, alkoxy, cycloalkoxy, alkoxyalkoxy, free or amidated or esterified carboxy-alkoxy; R2 = H, alkyl, cycloalkyl, alkoxyalkyl, cycloalkoxyalkyl, OH, hydroxyalkoxy, heteroarylalkyl, etc.; R3 = halogenated alkyl, alkoxyalkyl, hydroxyalkyl, optionally S-oxidized alkylthioalkyl, etc.; R4 = H, alkyl, OH, alkoxy, cycloalkoxy; X = CH<sub>2</sub>; R5 = alkyl, cycloalkyl; R6 = unsubstituted or alkylated or alkanoylated amino; R7 = alkyl, alkenyl, cycloalkyl, aralkyl; R8 = alkyl, cycloalkyl, free or esterified or etherified hydroxyalkyl, free or esterified or amidated carboxyalkyl, etc. Although the methods of preparation are claimed and >180 example preps. are included, these examples comprise an English translation of a German patent (EP 678503; 1995; CA file accession number 1995:995373). Thus, 2(R,S)-methyl-4(S)-hydroxy-5(S)-amino-7(S)-isopropyl-8-(p-tert-butylphenyl)octanoic acid N-butylamide hydrochloride was prepared in several steps starting with
- ST aminohydroxyaralkanamide prepn anti Alzheimer's; beta secretase inhibitor aminohydroxyaralkanamide; A beta peptide deposition inhibitor aminohydroxyaralkanamide prepn; amide amino hydroxy aralkyl prepn anti Alzheimer's dementia
- IT Brain, disease  
(amyloid angiopathy; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)
- IT Brain, disease  
(amyloidosis, hereditary cerebral hemorrhage type, Dutch type; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)
- IT Amyloid precursor proteins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(cleavage inhibitors; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)
- IT Mental disorder  
(cognitive; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)
- IT Parkinson's disease  
(dementia associated with; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)
- IT Mental disorder  
(dementia; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)
- IT Cognition

(disorder; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT Amides, preparation  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug candidates; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT Amyloidosis  
 (hereditary, cerebral hemorrhage type, Dutch type; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT Alzheimer's disease  
 Anti-Alzheimer's agents  
 Cognition enhancers  
 Down's syndrome  
 Human  
 (methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT Paralysis  
 (pseudobulbar, dementia associated with; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT Amyloid  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 ( $\beta$ -, production inhibitors; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT 158736-49-3,  $\beta$ -Secretase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

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	173400-23-2P	173400-24-3P	173400-25-4P	173400-26-5P	173400-27-6P
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	173521-23-8P	173521-24-9P	173521-25-0P	173521-26-1P	173521-27-2P
	173521-28-3P	173521-29-4P	173521-30-7P	173521-31-8P	173521-32-9P
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(methods of treating Alzheimer's disease using and method of preparing  
 $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT 74-89-5, Methanamine, reactions 96-32-2, Methyl bromoacetate 106-93-4,  
 1,2-Dibromoethane 107-30-2, Chloromethyl methyl ether 108-00-9,  
 2-Dimethylaminoethylamine 109-02-4 109-73-9, Butylamine, reactions  
 109-85-3, 2-Methoxyethylamine 120-80-9, Catechol, reactions 123-00-2,  
 4-(3-Aminopropyl)morpholine 124-40-3, reactions 141-43-5, reactions  
 144-48-9, Iodoacetamide 144-90-1, 3-Amino-2-methylpropionic acid  
 156-87-6, 3-Aminopropanol 353-83-3, 2,2,2-Trifluoroethyl iodide  
 358-23-6, Trifluoromethanesulfonic anhydride 556-56-9, Allyl iodide  
 574-98-1, N-(2-Bromoethyl)phthalimide 598-41-4 612-23-7, 2-Nitrobenzyl  
 chloride 623-48-3, Ethyl iodoacetate 624-75-9, Iodoacetoneitrile  
 627-32-7, 3-Iodopropanol 628-17-1, 1-Iodopentane 831-61-8, Ethyl  
 gallate 1001-53-2, N-Acetylenediamine 1117-71-1, Methyl  
 4-bromo-2-butenate 1700-31-8, 3-Benzyloxybenzyl bromide 2038-03-1,  
 4-(2-Aminoethyl)morpholine 2567-29-5, p-Phenylbenzyl bromide  
 2706-56-1, 2-(2-Aminoethyl)pyridine 3014-80-0 3132-64-7,  
 Epibromohydrin 4045-24-3, 4-Methoxypiperidine 4049-39-2,  
 4-Benzyloxy-3-hydroxybenzaldehyde 4244-84-2,  $\beta$ -Alanine ethyl ester  
 hydrochloride 4296-15-5, 2-Methoxyethyl iodide 4383-06-6 4403-36-5  
 4578-63-6 5332-73-0, 3-Methoxypropylamine 5437-45-6, Benzyl  
 bromoacetate 5469-26-1, 1-Bromopinacolone 6065-32-3 6485-45-6,  
 trans-2,6-Dimethylmorpholine 6485-55-8, cis-2,6-Dimethylmorpholine  
 6727-73-7, 4-Iodobutyronitrile 6727-75-9 6959-47-3, 2-Picolyl chloride  
 hydrochloride 6959-48-4, 3-Picolyl chloride hydrochloride 6974-12-5,  
 1,4-Dibromo-2-butene 7768-28-7, 2-(2-Hydroxyphenyl)ethanol 10445-91-7,  
 4-Picolyl chloride 10466-56-5 13031-62-4 13325-10-5,  
 4-Amino-1-butanol 14273-88-2 18880-00-7, 4-tert-Butylbenzyl bromide  
 21752-29-4 22059-22-9, Acetamide oxime 25016-01-7,  
 5-Bromo-o-anisaldehyde 27578-60-5, 1-Piperidineethanamine 28398-27-8  
 30044-65-6 30715-50-5 31602-64-9, 1H-Tetrazole-5-ethanamine  
 31640-94-5, 2-Picolyl chloride N-oxide 32754-99-7, 4-Aminobutyronitrile  
 33208-99-0 34270-90-1 35666-81-0 36865-41-5, 3-Bromopropyl methyl  
 ether 37942-01-1, 5-Bromo-2-methoxyphenol 39739-03-2 40546-33-6,  
 1H-Imidazole-4-propanamine 51739-61-8 53056-86-3 53515-36-9,  
 4-(2-Aminoethyl)thiomorpholine 55667-12-4, 3-Benzyloxy-4-methoxybenzyl  
 bromide 56217-93-7, 1H-Tetrazole-5-propanamine 57471-69-9  
 59193-77-0, Ethyl 3-amino-2,2-dimethylpropionate 61275-22-7 61542-10-7  
 64017-81-8, 3-Aminopropionamide hydrochloride 65414-74-6, L-Serinamide  
 hydrochloride 67706-63-2 72287-77-5 74410-26-7 75178-96-0  
 85532-40-7 85532-42-9 89937-52-0 91893-70-8 93530-08-6  
 94987-87-8 97965-80-5 99065-34-6 101925-47-7 104539-21-1  
 123691-74-7 125218-79-3 129999-60-6 132393-07-8 139243-55-3  
 145414-31-9 145589-03-3 155851-20-0 165528-81-4 168570-20-5  
 172901-00-7 173336-34-0 173336-43-1 173336-57-7 173336-77-1  
 173336-78-2 173336-79-3 173336-80-6 173336-82-8 173336-83-9  
 173336-85-1 173336-86-2 173336-87-3 173336-88-4 173336-89-5  
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 173336-95-3 173336-96-4 173336-98-6 173336-99-7 173337-00-3  
 173337-01-4 173337-02-5 173337-03-6 173337-04-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(methods of treating Alzheimer's disease using and method of preparing  
 $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT 7417-18-7P 67843-72-5P 70436-03-2P 139517-71-8P 142035-70-9P  
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 173335-95-0P 173335-96-1P 173335-97-2P 173335-98-3P 173335-99-4P  
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173336-15-7P	173336-16-8P	173336-17-9P	173336-18-0P	173336-19-1P
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173336-30-6P	173336-31-7P	173336-32-8P	173336-33-9P	173336-35-1P
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173336-73-7P	173336-74-8P	173336-75-9P	173336-76-0P	173336-81-7P
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173338-19-7P	173338-20-0P			

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT	173338-21-1P	173338-22-2P	173338-23-3P	173338-24-4P	
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	173400-56-1P	173400-57-2P	173400-58-3P	173400-59-4P	173400-60-7P
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT	172966-66-4P	172966-67-5P	172966-68-6P	172966-69-7P	172966-70-0P
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	172966-76-6P	172966-77-7P	172966-78-8P	172966-79-9P	172966-80-2P
	172966-81-3P	172966-82-4P	172966-83-5P	172966-84-6P	172966-85-7P
	172966-86-8P	172966-87-9P	172966-88-0P	172966-89-1P	172966-90-4P
	172966-91-5P	172966-92-6P	172966-93-7P	172966-94-8P	172966-95-9P
	172966-96-0P				

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

IT 150234-52-9 186142-26-7 288584-07-6 288584-08-7 388083-33-8  
478799-42-7 478799-43-8 635708-54-2 635777-06-9

RL: PRP (Properties)

(unclaimed sequence; methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Ala, T; WO 02100820 A 2002 HCAPLUS
- (2) Ciba Geigy Ag; EP 0678514 A 1995 HCAPLUS
- (3) Indolese, A; WO 0109083 A 2001 HCAPLUS
- (4) Leung, D; JOURNAL OF MEDICINAL CHEMISTRY 2000, V43(3), P305 HCAPLUS
- (5) Mealy, N; DRUGS OF THE FUTURE 2001, V26(12), P1139 HCAPLUS
- (6) Rahuel, J; CHEMISTRY & BIOLOGY 2000, V7(7), P493 HCAPLUS
- (7) Roggo, S; CURRENT TOPICS IN MEDICINAL CHEMISTRY 2002, V2(4), P359 HCAPLUS
- (8) Speedel Pharma Ag; WO 0208172 A 2002 HCAPLUS
- (9) Speedel Pharma Ag; EP 1215201 A 2002 HCAPLUS
- (10) Stutz, S; WO 0202508 A 2002 HCAPLUS
- (11) Yamaguchi, Y; US 5559111 A 1996 HCAPLUS

IT 173335-29-0P 173335-68-7P 173400-15-2P

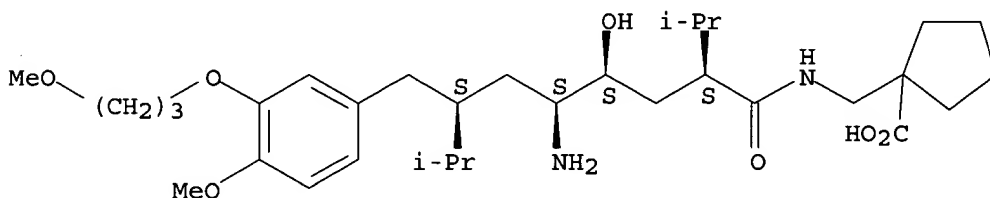
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

RN 173335-29-0 HCAPLUS

CN Cyclopentanecarboxylic acid, 1-[[[(2S,4S,5S,7S)-5-amino-4-hydroxy-7-[[4-methoxy-3-(3-methoxypropoxy)phenyl]methyl]-8-methyl-2-(1-methylethyl)-1-oxononyl]amino]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

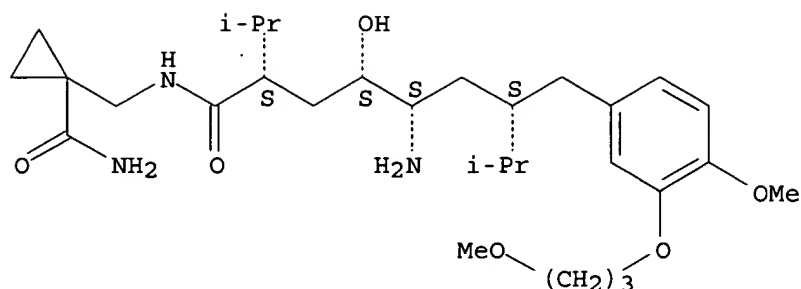


● HCl

RN 173335-68-7 HCAPLUS

CN Benzeneoctanamide,  $\delta$ -amino-N-[[1-(aminocarbonyl)cyclopropyl]methyl]- $\gamma$ -hydroxy-4-methoxy-3-(3-methoxypropoxy)- $\alpha, \zeta$ -bis(1-methylethyl)-, ( $\alpha$ S, $\gamma$ S, $\delta$ S, $\zeta$ S)- (9CI) (CA INDEX NAME)

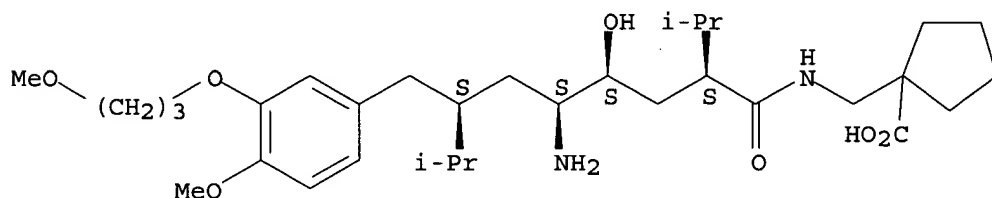
Absolute stereochemistry.



RN 173400-15-2 HCAPLUS

CN Cyclopentanecarboxylic acid, 1-[[[(2S,4S,5S,7S)-5-amino-4-hydroxy-7-[[4-methoxy-3-(3-methoxypropoxy)phenyl]methyl]-8-methyl-2-(1-methylethyl)-1-oxononyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 173338-25-5P

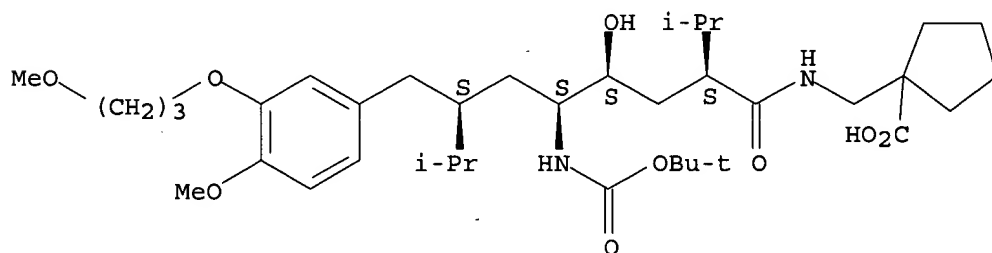
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(methods of treating Alzheimer's disease using and method of preparing  $\delta$ -amino- $\gamma$ -hydroxy- $\omega$ -arylalkanoic acid amides)

RN 173338-25-5 HCAPLUS

CN Cyclopentanecarboxylic acid, 1-[[[(2S,4S,5S,7S)-5-[[[(1,1-dimethylethoxy)carbonyl]amino]-4-hydroxy-7-[[4-methoxy-3-(3-methoxypropoxy)phenyl]methyl]-8-methyl-2-(1-methylethyl)-1-oxononyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L62 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:43054 HCAPLUS

DN 138:107007

ED Entered STN: 17 Jan 2003

TI Preparation of 5-amino-4-hydroxypentanoic acid derivatives for treating Alzheimer's disease

IN Hom, Roy; Mamo, Shumeye; Tung, Jay;  
Gailunas, Andrea; John, Varghese; Fang, Lawrence

PA USA

SO U.S. Pat. Appl. Publ., 113 pp., Cont.-in-part of U. S. Ser. No. 815,960.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM C07D333-52  
 ICS C07C229-00; C07D215-12; C07D213-53; C07D209-14  
 NCL 544335000; 546176000; 546329000; 548503000; 558418000; 549049000;  
 560038000  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 1, 7  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003013881	A1	20030116	US 2001-960634	20010921 <--
	US 2002019403	A1	20020214	US 2001-816876	20010323 <--
	US 2002022623	A1	20020221	US 2001-815960	20010323 <--
	US 6737420	B2	20040518		
	US 2004214846	A1	20041028	US 2004-847819	20040518 <--
PRAI	US 2000-191528P	P	20000323		
	US 2001-815960	A2	20010323		
	US 2001-816876	A2	20010323		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003013881	ICM	C07D333-52
	ICS	C07C229-00; C07D215-12; C07D213-53; C07D209-14
	NCL	544335000; 546176000; 546329000; 548503000; 558418000; 549049000; 560038000
US 2003013881	ECLA	C07C237/22; C07C271/14; C07C271/18; C07C271/22; C07D261/20; C07D295/12B1D2; C07D295/18B1F; C07D307/32C; C07D307/52; C07K005/02C; C07K007/02 <--
US 2002019403	ECLA	C07C237/22; C07C271/14; C07C271/18; C07C271/22; C07D261/20; C07D295/12B1D2; C07D295/18B1F; C07D307/32C; C07D307/52; C07K005/02C; C07K007/02 <--
US 2002022623	ECLA	C07C237/22; C07C271/14; C07C271/18; C07C271/22; C07D261/20; C07D295/12B1D2; C07D295/18B1F; C07D307/32C; C07D307/52; C07K005/02C; C07K007/02 <--
US 2004214846	ECLA	C07C237/22; C07C271/14; C07C271/18; C07C271/22; C07D261/20; C07D295/12B1D2; C07D295/18B1F; C07D307/32C; C07D307/52; C07K005/02C; C07K007/02 <--

OS MARPAT 138:107007

AB The invention is directed toward substituted hydroxyethylene compds. having the fragment -NHCHR<sup>1</sup>CH(OH)CH<sub>2</sub>CHR<sup>2</sup>CO- [R<sup>1</sup> = alkyl, alkylthioalkyl, alkenyl, (hetero)aryl, (hetero)arylalkyl, heterocyclalkyl, or heterocyclyl; R<sup>2</sup> = H, alkyl, cycloalkylalkyl, or (hetero)aryl] for use in treating **Alzheimer's** disease and similar diseases. In an example, N-[(1S,2S,4R)-1-(3,5-difluorobenzyl)-4-(syn,syn)-(3,5-dimethoxycyclohexylcarbamoyl)-2-hydroxyhexyl]-N,N-dipropylisophthalamide was prepared by solution-based methodol.

ST peptide aminohydroxypentanoic acid prepn treatment **Alzheimers**;  
 hydroxypentanoic acid amino prepn treatment **Alzheimers**

IT **Amyloidosis**

(Dutch-Type; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Brain, disease

(amyloid angiopathy; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Hemorrhage

(cerebral, hereditary; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Mental disorder

(cognitive; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Brain, disease  
(cortical basal degeneration; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Mental disorder  
(dementia; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Cognition  
(**disorder**; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Brain, disease  
(hemorrhage, hereditary; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT **Alzheimer's** disease  
Down's syndrome  
Human  
Parkinson's disease  
(preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Peptides, preparation  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Paralysis  
(pseudobulbar; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT Amyloid  
RL: BSU (Biological study, unclassified); BIOL (Biological study) ( $\beta$  -; preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT 158736-49-3,  $\beta$  Secretase  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT 362479-96-7P  
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

IT 362480-11-3P 362480-12-4P 362480-13-5P 362480-14-6P 362480-15-7P  
362480-16-8P 362480-17-9P 362480-18-0P 362480-19-1P 362480-20-4P  
362480-21-5P 362480-22-6P 362480-23-7P 362480-24-8P 362480-25-9P  
362480-26-0P 362480-27-1P 362480-28-2P 362480-29-3P 362480-30-6P  
362480-31-7P 362480-32-8P 362480-33-9P 362480-34-0P 362480-35-1P  
362480-36-2P 362480-37-3P 362480-38-4P 362480-39-5P 485807-13-4P  
485807-14-5P 485807-15-6P 485807-16-7P 485807-17-8P 485807-18-9P  
485807-19-0P 485807-20-3P 485807-21-4P 485807-22-5P 485807-23-6P  
485807-24-7P 485807-25-8P 485807-26-9P 485807-27-0P 485807-28-1P  
485807-29-2P 485807-30-5P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of amino(hydroxy)pentanoic acid derivs. for treating **Alzheimer's** disease)

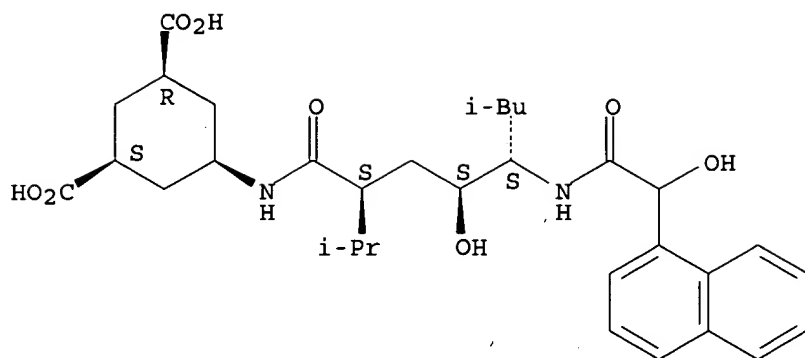
IT 60-32-2, 6 Aminohexanoic acid 78-84-2, Isobutyraldehyde 79-03-8, Propionyl chloride 79-30-1, Isobutyryl chloride 90-82-4, + Pseudoephedrine 116-11-0, 2 Methoxy 1 propene 638-29-9, Pentanoyl chloride 645-45-4, 3 Phenylpropionyl chloride 701-54-2 1002-57-9, 8 Aminooctanoic acid 1197-18-8 1826-67-1, Vinylmagnesium bromide 6341-54-4 18469-52-8 68683-72-7 74733-38-3 83646-27-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of amino(hydroxy)pentanoic acid derivs. for treating  
**Alzheimer's** disease)

(preparation of amino(hydroxy)pentanoic acid derivs. for treating Alzheimer's disease)

1479-89-8 HCAPLUS  
Methioninamide, N-[(1,1-dimethylethoxy)carbonyl]-L-valyl-N-[(1S,2S,4S)-4-  
[(4-carboxyphenyl)methyl]amino]carbonyl]-2-hydroxy-5-methyl-1-(2-  
ethylpropyl)hexyl]- (9CI) (CA INDEX NAME)

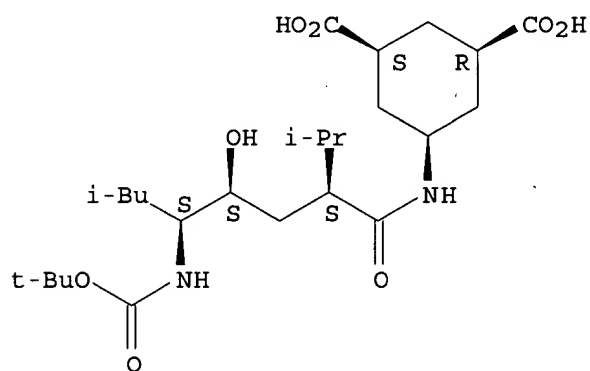
Absolute stereochemistry.



RN 362479-91-2 HCAPLUS

CN 1,3-Cyclohexanedicarboxylic acid, 5-[[[(2S,4S,5S)-5-[[[(1,1-dimethylethoxy)carbonyl]amino]-4-hydroxy-7-methyl-2-(1-methylethyl)-1-oxooctyl]amino]-, (1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )- (9CI) (CA INDEX NAME)

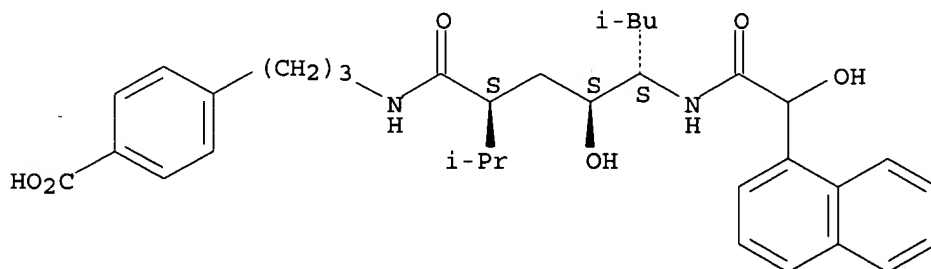
Absolute stereochemistry.



RN 362479-92-3 HCAPLUS

CN Benzoic acid, 4-[3-[[[(2S,4S,5S)-4-hydroxy-5-[(hydroxy-1-naphthalenylacetyl)amino]-7-methyl-2-(1-methylethyl)-1-oxooctyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L62 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:713293 HCAPLUS

DN 135:273220

ED Entered STN: 28 Sep 2001

TI Preparation of hydroxyethylenes with peptide subunits for pharmaceutical

use in the treatment of **Alzheimer's** disease

IN **Hom, Roy; Mamo, Shumeye; Tung, Jay;**  
**Gailunas, Andrea; John, Varghese; Fang, Larry**

PA **Elan Pharmaceuticals, Inc., USA**

SO PCT Int. Appl., 240 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07C235-00

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1, 63

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001070672	A2	20010927	WO 2001-US9501	20010323 <--
	WO 2001070672	A3	20020321		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2401749	AA	20010927	CA 2001-2401749	20010323 <--
	EP 1265849	A2	20021218	EP 2001-926424	20010323 <--
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2003528071	T2	20030924	JP 2001-568884	20010323 <--
PRAI	US 2000-191528P	P	20000323	<--	
	WO 2001-US9501	W	20010323		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 2001070672	ICM	C07C235-00
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OS MARPAT 135:273220

AB Hydroxyethylenes, such as RNHCHR1CH(OH)CH2CHR2COBR3 [R = peptidyl group, acyl, etc.; R1 = alkyl, alkenyl, arylalkyl, etc.; R2 = H, alkyl, cycloalkyl, arylalkyl, etc.; BR3 = peptidyl group; B = O, NR4; R3 = alkyl, arylalkyl, etc.; R4 = H, alkyl, etc.], were prepared as agents for the treatment of **Alzheimer's** disease. Thus, BOC-L-Val-L-Met-NH-(S,S,S)-CH(CH2CHMe2)CH(OH)CH(CHMe2)CO-L-Ala-L-Glu-L-Phe-OH via a series of amide coupling reactions of the corresponding amino acids with the hydroxyethylene moiety. The prepared hydroxyethylenes were tested for  $\beta$ -secretase inhibiting activity.

ST peptide hydroxyethylene prepn **Alzheimer** disease treatment

IT **Anti-Alzheimer's agents**

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of **Alzheimer's** disease)

IT 362480-10-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of **Alzheimer's** disease)

IT 362479-88-7P 362479-89-8P 362479-90-1P

362479-91-2P 362479-92-3P 362479-93-4P 362479-94-5P

362479-95-6P 362479-96-7P 362479-97-8P 362479-98-9P 362479-99-0P

362480-00-0P 362480-11-3P 362480-12-4P 362480-13-5P 362480-14-6P

362480-15-7P 362480-16-8P 362480-17-9P 362480-18-0P 362480-19-1P

362480-20-4P 362480-21-5P 362480-22-6P 362480-23-7P 362480-24-8P



362480-25-9P 362480-26-0P 362480-27-1P 362480-28-2P 362480-29-3P  
 362480-30-6P 362480-31-7P 362480-32-8P 362480-33-9P 362480-34-0P  
 362480-35-1P 362480-36-2P 362480-37-3P 362480-38-4P 362480-39-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of **Alzheimer's** disease)

IT 158736-49-3,  $\beta$ -Secretase

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of **Alzheimer's** disease)

IT 60-32-2 79-03-8, Propanoyl chloride 96-81-1 141-75-3, Butanoyl chloride 638-29-9, Pentanoyl chloride 645-45-4, Benzenepropanoyl chloride 1002-57-9 1197-18-8 2488-15-5 6341-54-4 13734-34-4  
 15761-38-3 18469-52-8 74733-38-3 126926-35-0 205445-52-9  
 337531-15-4 362480-40-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of **Alzheimer's** disease)

IT 362480-01-1P 362480-02-2P 362480-03-3P 362480-04-4P 362480-05-5P  
 362480-06-6P 362480-07-7P 362480-08-8P 362480-09-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of **Alzheimer's** disease)

IT 150234-52-9 186142-26-7 288584-07-6 288584-08-7

RL: PRP (Properties)

(unclaimed sequence; preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of **Alzheimer's** disease)

IT 362479-89-8P 362479-90-1P 362479-91-2P  
 362479-92-3P

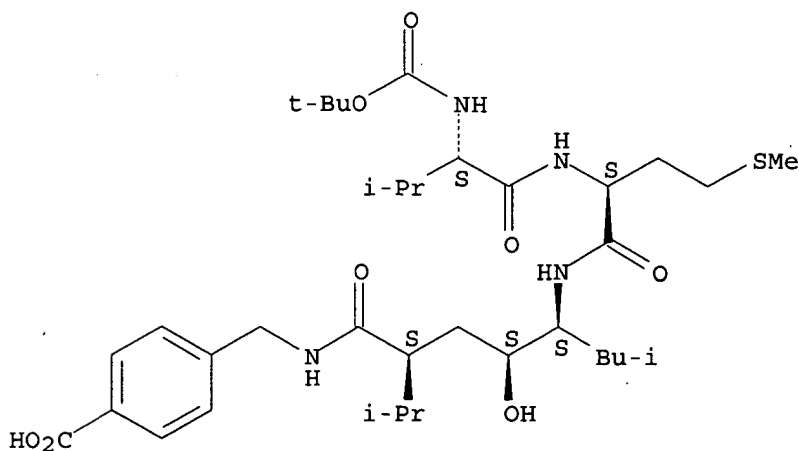
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of hydroxyethylenes with peptide subunits for pharmaceutical use in the treatment of **Alzheimer's** disease)

RN 362479-89-8 HCAPLUS

CN L-Methioninamide, N-[(1,1-dimethylethoxy)carbonyl]-L-valyl-N-[(1S,2S,4S)-4-[[[(4-carboxyphenyl)methyl]amino]carbonyl]-2-hydroxy-5-methyl-1-(2-methylpropyl)hexyl]- (9CI) (CA INDEX NAME)

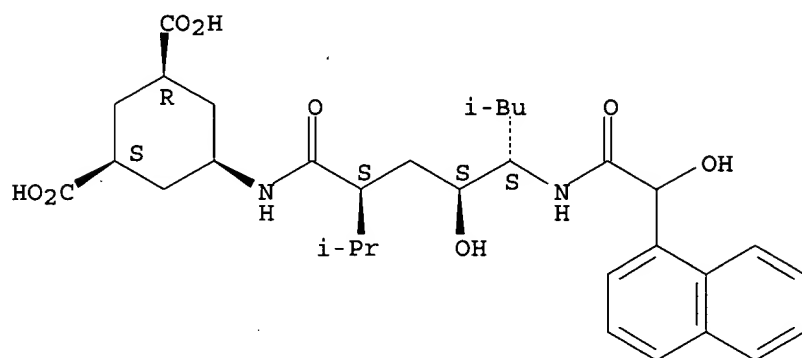
Absolute stereochemistry.



RN 362479-90-1 HCAPLUS

CN 1,3-Cyclohexanedicarboxylic acid, 5-[[[(2S,4S,5S)-4-hydroxy-5-[(hydroxy-1-naphthalenylacetyl)amino]-7-methyl-2-(1-methylethyl)-1-oxooctyl]amino]-, (1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )- (9CI) (CA INDEX NAME)

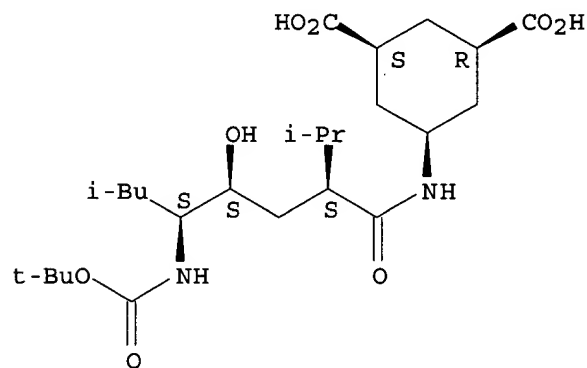
Absolute stereochemistry.



RN 362479-91-2 HCAPLUS

CN 1,3-Cyclohexanedicarboxylic acid, 5-[[[(2S,4S,5S)-5-[[[(1,1-dimethylethoxy)carbonyl]amino]-4-hydroxy-7-methyl-2-(1-methylethyl)-1-oxooctyl]amino]-, (1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )- (9CI) (CA INDEX NAME)

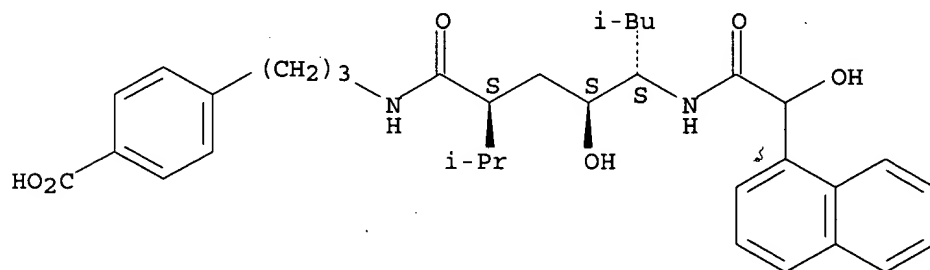
Absolute stereochemistry.



RN 362479-92-3 HCAPLUS

CN Benzoic acid, 4-[3-[[[(2S,4S,5S)-4-hydroxy-5-[(hydroxy-1-naphthalenylacetyl)amino]-7-methyl-2-(1-methylethyl)-1-oxooctyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



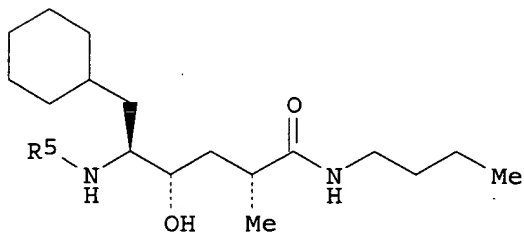
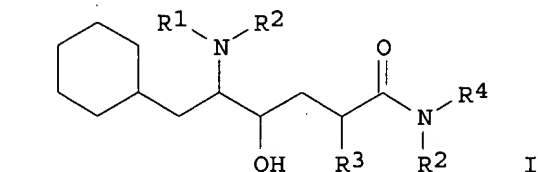
L62 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1998:15715 HCAPLUS  
 DN 128:102390  
 ED Entered STN: 12 Jan 1998  
 TI 5-amino-6-cyclohexyl-4-hydroxy-hexanamide derivatives as inhibitors of  
 $\beta$ -amyloid protein production  
 IN Felsenstein, Kevin; Smith, David W.; Poss, Michael A.; Chaturvedula,  
 Prasad; Sloan, Charles P.  
 PA Bristol-Myers Squibb Co., USA  
 SO U.S., 18 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM A61K031-17  
 NCL 514613000  
 CC 34-3 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5703129	A	19971230	US 1996-723488	19960930 <--
PRAI	US 1996-723488		19960930	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 5703129	ICM	A61K031-17	
	NCL	514613000	
US 5703129	ECLA	C07C237/14; C07C323/41; C07D307/32C	<--
OS	MARPAT 128:102390		
GI			



II

AB A series of peptidic cyclohexylhexanamide derivs. I [R1 = C4-8 alkyl or alkenyl, C1-4 alkoxy or alkanediyl, (un)substituted C3-6 cycloalkyl or cycloalkyl-lower-alkanediyl, (un)substituted arylalkyl; R2 = H, Me; R3 = alkyl, C3-6 cycloalkyl, cycloalkyl-lower-alkanediyl, alkenyl, (un)substituted arylalkyl; R4 = R3, alkylthioalkyl, CH(R6)CONHR6; R6 = lower alkyl] or their pharmaceutically acceptable salts, were prepared as inhibitors of  $\gamma$ -secretase, thereby acting to prevent the accumulation of  $\beta$ -amyloid protein deposits in the brain. For example, cyclohexylhexanamide II (R5 = H) was reacted with

4-methylvaleraldehyde in the presence of NaBH(OAc)<sub>3</sub> and the free base salified with HCl, to give the HCl salt of II [R<sub>5</sub> = Me<sub>2</sub>C(CH<sub>2</sub>)<sub>3</sub>], which inhibited  $\gamma$ -secretase at  $\leq 10 \mu\text{M}$ . Compds. I are expected to be effective in treating patients suffering from or susceptible to conditions or disorders linked to brain accumulation of  $\beta$ -amyloid protein; e.g., Alzheimer's Disease and Down's Syndrome.

ST aminocyclohexylhydroxyhexanamide prepn amyloid protein prodn inhibitor;  
cyclohexylhexanamide peptide analog prepn secretase inhibitor;  
Alzheimer disease treatment aminocyclohexylhydroxyhexanamide deriv  
prepn; Down syndrome treatment  
aminocyclohexylhydroxyhexanamide deriv prepn

IT **Amyloid**

RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)

( $\beta$  -; preparation of aminocyclohexylhydroxyhexanamide derivs.  
as inhibitors of  $\beta$  -amyloid protein production)

IT 192386-59-7P 192386-60-0P 192386-61-1P 192386-62-2P 192386-63-3P  
192386-64-4P 192386-65-5P 192386-66-6P **192386-67-7P**  
192386-68-8P **192386-69-9P** 192386-70-2P 192386-71-3P  
192386-72-4P 192386-73-5P 192386-74-6P 192386-75-7P 192386-76-8P  
192386-77-9P 192386-78-0P 192386-79-1P 192386-80-4P 192386-81-5P  
192386-82-6P 192386-83-7P 192386-84-8P 192386-85-9P 192386-86-0P  
192386-87-1P 192386-89-3P 192386-90-6P 192386-92-8P  
**192386-93-9P** 192386-94-0P 192386-95-1P 192386-96-2P  
192386-97-3P 192386-98-4P 192386-99-5P 192456-37-4P 192456-39-6P  
**201280-77-5P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminocyclohexylhydroxyhexanamide derivs. as inhibitors of  $\beta$ -amyloid protein production)

IT 158736-49-3,  $\gamma$ -Secretase

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(preparation of aminocyclohexylhydroxyhexanamide derivs. as inhibitors of  $\beta$ -amyloid protein production)

IT 64-04-0, Benzeneethanamine 66-99-9, 2-Naphthalenecarboxaldehyde  
78-81-9, 2-Methylpropanamine 108-18-9, Diisopropylamine 110-12-3  
110-62-3, Pentanal 589-92-4, 4-Methylcyclohexanone 590-86-3,  
3-Methylbutanal 591-24-2, 3-Methylcyclohexanone 591-31-1,  
3-Methoxybenzaldehyde 620-23-5 1119-16-0, 4-Methylvaleraldehyde  
1757-42-2, 3-Methylcyclopentanone 1860-39-5, 5-Methylhexanal  
2270-59-9, 5-Bromo-2-methyl-2-pentene 3395-91-3, Methyl  
3-bromopropionate 3886-69-9 4104-45-4 5432-85-9 5618-02-0,  
Cyclopropanepropanal 5664-21-1, Cyclohexaneacetaldehyde 5781-53-3,  
Methyl oxalyl chloride 5813-64-9, 2,2-Dimethylpropanamine 6053-89-0,  
Cyclopentanepropanal 15877-57-3, 3-Methylpentanal 77342-92-8  
98105-42-1 192387-01-2 201280-72-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of aminocyclohexylhydroxyhexanamide derivs. as inhibitors of  $\beta$ -amyloid protein production)

IT 5029-66-3P 105852-64-0P 112227-09-5P 119773-58-9P 124032-36-6P  
125015-95-4P 127772-94-5P 129921-94-4P 132094-22-5P 132094-23-6P  
132154-76-8P 141258-90-4P 192386-88-2P 192387-00-1P 201280-53-7P  
201280-54-8P 201280-55-9P 201280-56-0P 201280-57-1P 201280-58-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aminocyclohexylhydroxyhexanamide derivs. as inhibitors of  $\beta$ -amyloid protein production)

IT **192386-67-7P 192386-69-9P 192386-93-9P**  
**201280-77-5P**

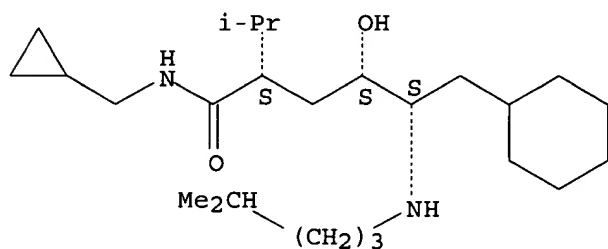
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of aminocyclohexylhydroxyhexanamide derivs. as inhibitors of  
 $\beta$ -amyloid protein production)

RN 192386-67-7 HCAPLUS

CN Cyclohexanehexanamide, N-(cyclopropylmethyl)- $\gamma$ -hydroxy- $\alpha$ -(1-methylethyl)- $\delta$ -[(4-methylpentyl)amino]-, monohydrochloride, [ $\alpha$ S-( $\alpha$ R\*, $\gamma$ R\*, $\delta$ R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

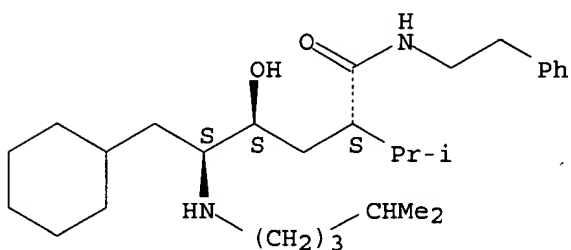


● HCl

RN 192386-69-9 HCAPLUS

CN Cyclohexanehexanamide,  $\gamma$ -hydroxy- $\alpha$ -(1-methylethyl)- $\delta$ -[(4-methylpentyl)amino]-N-(2-phenylethyl)-, monohydrochloride, [ $\alpha$ S-( $\alpha$ R\*, $\gamma$ R\*, $\delta$ R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

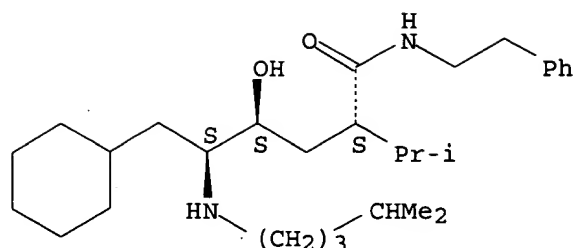


● HCl

RN 192386-93-9 HCAPLUS

CN Cyclohexanehexanamide,  $\gamma$ -hydroxy- $\alpha$ -(1-methylethyl)- $\delta$ -[(4-methylpentyl)amino]-N-(2-phenylethyl)-, [ $\alpha$ S-( $\alpha$ R\*, $\gamma$ R\*, $\delta$ R\*)]- (9CI) (CA INDEX NAME)

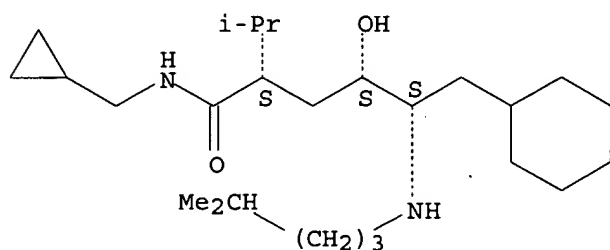
Absolute stereochemistry.



RN 201280-77-5 HCAPLUS

CN Cyclohexanehexanamide, N-(cyclopropylmethyl)-γ-hydroxy-α-(1-methylethyl)-δ-[(4-methylpentyl)amino]-, [αS-(αR\*, γR\*, δR\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L62 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:470004 HCAPLUS

DN 127:109192

ED Entered STN: 26 Jul 1997

TI Preparation of 5-amino-6-cyclohexyl-4-hydroxyhexanamide derivatives as inhibitors of beta-amyloid protein production for the treatment of Alzheimer's disease

IN Felsenstein, Kevin; Smith, David W.; Poss, Michael A.; Chaturvedula, Prasad; Sloan, Charles P.

PA Bristol-Myers Squibb Company, USA

SO Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C07C237-14

ICS A61K031-195

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1

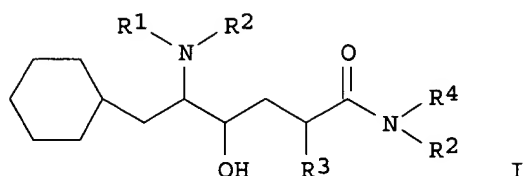
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 778266	A1	19970611	EP 1996-308768	19961204 <--
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	CA 2191924	AA	19970606	CA 1996-2191924	19961203 <--
	AU 9674121	A1	19970612	AU 1996-74121	19961204 <--
	AU 704145	B2	19990415		
	JP 09169713	A2	19970630	JP 1996-324904	19961205 <--
PRAI	US 1995-7972P	P	19951205	<--	

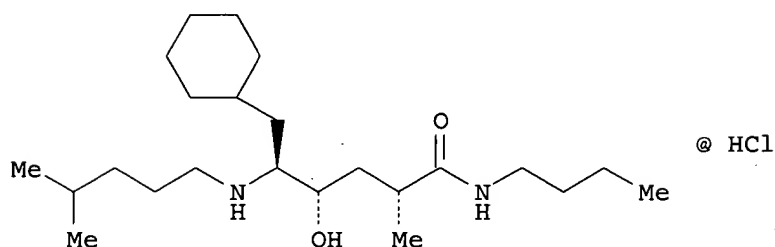
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

EP 778266 ICM C07C237-14  
ICS A61K031-195  
OS MARPAT 127:109192  
GI



I



II

- AB The peptidic title cyclohexanehexanamides I [R1 = C4-8 alkyl, alkenyl, (un)substituted arylalkyl, alkoxyalkyl, (un)substituted cycloalkyl; R2 = H, Me; R3 = alkyl, cycloalkyl, (cycloalkyl)alkyl, alkenyl, arylalkyl; R4 = R3, alkylthioalkyl, CH(R6)CONHR6; R6 = lower alkyl], useful for inhibiting  $\gamma$ -secretase, which, in turn, inhibits the brain's formation of  $\beta$ -amyloid protein, the reputed cause of **Alzheimer's** cerebral pathol., were prepared. Thus, [ $\alpha$ S-( $\alpha$ R\*, $\gamma$ R\*, $\delta$ R\*)]- $\delta$ -amino-N-butyl- $\gamma$ -hydroxy- $\alpha$ -methylcyclohexanehexanamide was reacted with 4-methylvaleraldehyde in the presence of NaBH(OAc)<sub>3</sub> and the free base salified with HCl, producing the cyclohexanehexanamide II, which inhibited  $\gamma$ -secretase at 10  $\mu$ M.
- ST aminocyclohexanehexanamide prepn amyloid protein prodn inhibition; **Alzheimer** disease treatment prepn aminocyclohexanehexanamide; secretase inhibition aminocyclohexanehexanamide; cyclohexanehexanamide peptide analog prepn **Alzheimer** treatment
- IT **Alzheimer's disease**  
(preparation of aminocyclohexylhydroxyhexanamides as inhibitors of  $\beta$ -amyloid protein production for the treatment of **Alzheimer's** disease)
- IT **Amyloid**  
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process); USES (Uses)  
( $\beta$  -; preparation of aminocyclohexylhydroxyhexanamides as inhibitors of  $\beta$  -amyloid protein production for the treatment of **Alzheimer's** disease)
- IT 5029-66-3P, Methyl 3-iodopropionate 105852-64-0P 112227-09-5P  
119773-58-9P 124032-36-6P 125015-95-4P 127772-94-5P 129921-94-4P  
132094-22-5P 132094-23-6P 132154-76-8P 141258-90-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate in preparation of aminocyclohexylhydroxyhexanamides as inhibitors of  $\beta$ -amyloid protein production for the treatment of **Alzheimer's** disease)
- IT 192387-00-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 5-amino-6-cyclohexyl-4-hydroxyhexanamide derivs. as inhibitors of beta-amyloid protein production for the treatment of **Alzheimer's** disease)

IT 192386-59-7P 192386-60-0P 192386-61-1P 192386-62-2P 192386-63-3P  
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 192386-68-8P **192386-69-9P** 192386-70-2P 192386-71-3P  
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 192386-77-9P 192386-78-0P 192386-79-1P 192386-80-4P 192386-81-5P  
 192386-82-6P 192386-83-7P 192386-84-8P 192386-85-9P 192386-86-0P  
 192386-87-1P 192386-88-2P 192386-89-3P 192386-90-6P  
**192386-91-7P** 192386-92-8P **192386-93-9P** 192386-94-0P  
 192386-95-1P 192386-96-2P 192386-97-3P 192386-98-4P 192386-99-5P  
 192456-37-4P 192456-39-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminocyclohexylhydroxyhexanamides as inhibitors of  $\beta$ -amyloid protein production for the treatment of **Alzheimer's** disease)

IT 158736-49-3,  $\gamma$ -Secretase

RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)

(preparation of aminocyclohexylhydroxyhexanamides as inhibitors of  $\beta$ -amyloid protein production for the treatment of **Alzheimer's** disease)

IT 64-04-0, Benzeneethanamine 66-99-9, 2-Formylnaphthalene 67-64-1, 2-Propanone, reactions 78-81-9, 2-Methylpropanamine 109-73-9, Butylamine, reactions 110-12-3, 5-Methyl-2-hexanone 110-62-3, Pentanal 589-92-4, 4-Methylcyclohexanone 590-86-3, 3-Methylbutanal 591-24-2, 3-Methylcyclohexanone 591-31-1, 3-Methoxybenzaldehyde 620-23-5, 3-Methylbenzaldehyde 1119-16-0, 4-Methylvaleraldehyde 1757-42-2, 3-Methylcyclopentanone 1860-39-5, 5-Methylhexanal 2270-59-9, 5-Bromo-2-methyl-2-pentene 2516-47-4, (Cyclopropylmethyl)amine 3395-91-3, Methyl 3-bromopropionate 3886-69-9 4104-45-4, 3-(Methylthio)-1-propanamine 5432-85-9, 4-Isopropylcyclohexanone 5618-02-0, Cyclopropanepropanal 5664-21-1, Cyclohexaneacetaldehyde 5781-53-3, Methyl oxalyl chloride 5813-64-9, 2,2-Dimethylpropyl amine 6053-89-0, Cyclopentanepropanal 15877-57-3, 3-Methylpentanal 77342-92-8 98105-42-1 192387-01-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant in preparation of aminocyclohexylhydroxyhexanamides as inhibitors of  $\beta$ -amyloid protein production for the treatment of **Alzheimer's** disease)

IT **192386-67-7P 192386-69-9P 192386-91-7P 192386-93-9P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

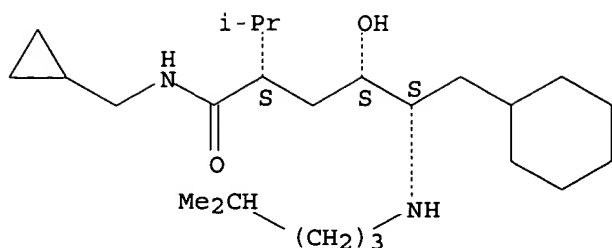
(preparation of aminocyclohexylhydroxyhexanamides as inhibitors of  $\beta$ -amyloid protein production for the treatment of **Alzheimer's** disease)

RN 192386-67-7 HCAPLUS

CN Cyclohexanehexanamide, N-(cyclopropylmethyl)- $\gamma$ -hydroxy- $\alpha$ -(1-methylethyl)- $\delta$ -[(4-methylpentyl)amino]-, monohydrochloride, [ $\alpha$ S-( $\alpha$ R\*, $\gamma$ R\*, $\delta$ R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



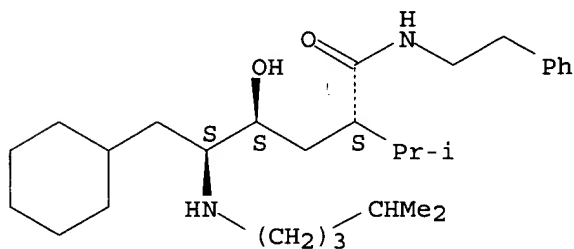


● HCl

RN 192386-69-9 HCAPLUS

CN Cyclohexanehexanamide,  $\gamma$ -hydroxy- $\alpha$ -(1-methylethyl)- $\delta$ -[(4-methylpentyl)amino]-N-(2-phenylethyl)-, monohydrochloride, [ $\alpha$ S-( $\alpha$ R\*, $\gamma$ R\*, $\delta$ R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

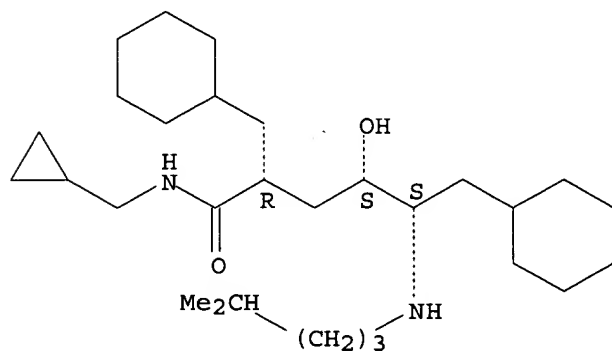


● HCl

RN 192386-91-7 HCAPLUS

CN Cyclohexanehexanamide,  $\alpha$ -(cyclohexylmethyl)-N-(cyclopropylmethyl)- $\gamma$ -hydroxy- $\delta$ -[(4-methylpentyl)amino]-, [ $\alpha$ R-( $\alpha$ R\*, $\gamma$ S\*, $\delta$ S\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 192386-93-9 HCAPLUS

CN Cyclohexanehexanamide,  $\gamma$ -hydroxy- $\alpha$ -(1-methylethyl)- $\delta$ -[(4-methylpentyl)amino]-N-(2-phenylethyl)-, [ $\alpha$ S-( $\alpha$ R\*, $\gamma$ R\*, $\delta$ R\*)]- (9CI) (CA INDEX NAME)

